Multi-Floor Renovation Project Environmental Protection Agency (EPA) Region 8 Headquarters Building

Indoor Air Quality Assessment Project January, 2018- January, 2019

Developed For:

Chad Bartlett Boots Construction 4949 S. Syracuse St. #450 Denver, CO 80237





Developed By:

Alex Green
Operations Manager
S&R Environmental Consulting, Inc.
5801 Logan Street, Suite 200
Denver, CO 80216





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February 7, 2019

Mr. Chad Bartlett Boot Construction 4949 S. Syracuse St. #450 Denver, CO 80237

RE: Indoor Air Quality Assessment Project
Boots Construction Multi-Floor Renovation Project
Environmental Protection Agency (EPA)- Region 8 Headquarters Building
1595 Wynkoop St.
Denver, CO 80202
S&R Project Number: 018013

Dear Mr. Bartlett,

S&R Environmental Consulting, Inc. (S&R) is pleased to provide the following report of findings from the indoor air quality (IAQ) air sampling and testing conducted at the Environmental Protection Agency (EPA)- Region 8 Headquarters Building in Denver Colorado. S&R understands that the Boots Construction and the EPA was looking for an environmental consulting company to conduct IAQ assessments before and after renovations to several areas of the building spaces. This document is prepared by S&R Industrial Hygienists with many years of experience with IAQ issues along with conducting numerous Leadership in Energy and Environmental Design (LEED) green building certifications for air quality credits.

UNDERSTANDING OF THE SITUATION

S&R understands that Boots Construction along with the EPA was seeking a professional environmental consulting company to conduct air quality testing prior to several phased, renovation projects throughout the building in order to establish a baseline level for overall air quality. In addition, S&R also conducted air quality testing following the completion of the renovation work in the building spaces in order to verify that general air quality levels were within the previous sampled baseline limits. The specific work areas of testing were a variety of

different sized spaces on 2nd, 3rd, 4th, 5th, 6th and 7th floors. Some minor testing was also conducted in the 1st floor lobby, but was not part of the renovation project. S&R understands that the building renovation project was scheduled to take place in multiple phases throughout 2018 with completion date in early 2019.

SCOPE OF WORK

S&R was contracted by Boot's Construction along with guidance from the EPA to conduct IAQ testing methods at the EPA building located in downtown Denver prior to and following the renovation work. S&R has been instructed to conduct pre-construction testing and post-construction clearance testing of the six (6) work spaces/phases identified above. All IAQ testing methods were conducted according to the LEED v4 Indoor Air Quality Testing for New Construction when applicable; however no LEED credits were being sought for during this project. Other best practice methods were incorporated for all testing procedures during the sampling times. While this is not an LEED accreditation project; S&R and the EPA have elected to use these values as ideal levels for clearances. Please see the table below for the established values.

IAQ Established Limits

Contaminant	Maximum Allowable Concentration	
Formaldehyde	27 parts per billion (ppb)	
Particulates (PM10)	50 micrograms per cubic meter (μg/m³)	
Total Volatile Organic Compounds (TVOC)	500 μg/m³	
Carbon Monoxide (CO)	9 parts per million (ppm)	
4-Phenylcyclohexene (4-PCH)	$6.5 \mu g/m^3$	
Caprolactam	* 5 milligrams per cubic meter (mg/m³)	
Carbon Dioxide (CO ₂)	** 5,000 ppm	
Particulates Not Otherwise Regulated	** 15 mg/m ³	
(Total)		
Particulates Not Otherwise Regulated	** 5 mg/m³	
(Respirable))		

^{*}No OSHA value applicable. Value established by American Conference of Governmental Industrial Hygienists (ACGIH).

**No LEED value. Value established by Occupational Safety and Health Administration (OSHA) Permissible Exposure Limit (PEL) 8-Hour Time Weighted Average (TWA)

The following outlines the testing procedures and methodology to obtain the IAQ values. No field blanks are required or were submitted for any of the below analytical methods.

Formaldehyde

The formaldehyde testing was conducted according to the NIOSH Method 2016. A DNPH-treated silica gel sorbent tube was used for the sampling media. The sorbent tube was attached to a personal sampling pump which is set to run at a flow rate of ~0.1 liters per minute for four (4) hours. Samples were analyzed at EMSL Analytical Laboratory.

Particulates (PM10)

The particulate test was conducted according with the EPA Method IP-10A (SKC- Modified). A 37mm preweighed 2.0 μ m polytetrafluoroethylene (PTFE) filter was used for the sampling media. One filter was attached to a separate high-volume sampling pumps which was set to run at a flow rate of 10 liters per minute for 4 hours.

As of May 23, 2018, Boots Construction/EPA alerted S&R to discontinue particulate analysis by PM-10 and switch to particulate analysis by NIOSH Methods 0500 and 0600.

Particulates (NIOSH 0500 and 0600 Methods)

The particulate test was conducted according to the NIOSH Methods 0500 and 0600 for Particulates Not Otherwise Regulated Total Dust (0500) and Respirable Dust (0600). A 37mm 3-stage cassette with a PVC filter was used for the sampling media. The cassette was attached to a personal sampling pump which was set to run at a flow rate of 2 liters per minute for total dust and 2.5 liters per minute for respirable dust. The total dust sample ran for 50 minutes while the respirable dust sample ran for 100 minutes. The respirable dust cassette was also fitted with an aluminum cyclone while the total dust cassette only was open on the inlet. Samples were analyzed at DCM Sciences Laboratory.

Total Volatile Organic Compounds (TVOCs)

The TVOC test was conducted according to the EPA Method TO-15 with a library search to indentify specific compound concentrations. A 6 liter SUMMA canister was used for the sampling media. The canister was attached to a flow regulator valve and set to run for 4 hours. Samples were analyzed at EMSL Analytical Laboratory.

Carbon Monoxide (CO)

The carbon monoxide test was conducted in conjunction with the TVOC tests and analyzed during the TO-15 analysis.

4-Phenylcyclohexene (4-PCH)

The 4-PCH test was conducted according to a modified OSHA CSI Method for 4-PCH Analysis. A coconut-shell charcoal sorbent tube was used for the sampling media. The sorbent tube was attached to a personal sampling pump which is set to run at a flow rate of 0.1 liters per minute for four (4) hours. Samples were analyzed at EMSL Analytical Laboratory.

Caprolactam

The caprolactam test was conducted according to OSHA Method PV2012. A OVS-7 sorbent tube was used for the sampling media. The sorbent tube was attached to a personal sampling pump which was set to run at a flow rate of 1.0 liters per minute for 100 minutes. Samples were analyzed at the Wisconsin Occupational Health Laboratory (WOHL).

Carbon Dioxide (CO₂)

The carbon dioxide test was conducted in conjunction with the TVOC tests and analyzed during the TO-15 analysis.

SAMPLING RESULTS AND LABORATORY DATA

The following details the IAQ sampling results from both the pre-testing and post-testing trials conducted in the work spaces. Summary values can be found listed below, while all of the complete summary sheets, laboratory data and chain of custodies can be found attached to this report.

Pre-Testing

Floor #3 and #4	January 18 th , 2018
Floor #4 (Personnel Requested Test)	
Lobby (1 st Floor)	February 23 rd , 2018
Floor #5 and #6	February 28 th , 2018
Floor #2 and #7	March 1 st , 2018

Post-Testing

Testing Schedule:

Floor #4	April 29 th , 2018
Floor #3	May 7 th , 2018
Floor #3 and #4 (PM-10 Retest)	May 14 th , 2018
Floor #5	July 6 th , 2018
Floor #6	August 31 st , 2018
Floor #7	November 9 th , 2018
Floor #2	January 29 th , 2019

Pre-Testing

3rd Floor (Pre-Testing) - January 18, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	$120 \ \mu g/m^3$	$500 \mu g/m^3$	N
CO	<9.9 ppm	9 ppm	Unknown**
4-PCH	$<1.2 \mu g/m^3$	$6.5 \mu g/m^3$	N
Formaldehyde	2.1 ppb	27 ppb	N
PM-10	NA*	$50 \mu g/m^3$	NA*
CO2	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

NA*= Issue with PM-10 filter during sampling. Could not recover values. Recommend conduct post-testing for values to determine if below Max. Limit.

Unknown**= Value was found to be less than 9.9 ppm but could not be exactly quantified due to the limit of detection being 9.9 ppm. Actual value may or may not be below 9 ppm. Upon laboratory explanation, limit of detection was high due to atmospheric pressure differential between location of calibration (Cinnaminson, NJ approx. 79' elevation) and sample location (Denver, CO approx. 5,280' elevation). Recommended to not use TO-15 Drager CMS for CO analysis and use real-time data logging meter or other method. T0-15 analysis and Drager CMS still appropriate for all other applicable analysis including CO2 since limit of detection is significantly different that Max. Limit.

4th Floor (Pre-Testing) - January 18, 2018

411 Floor (Fre-resting) - January 10, 2010			
Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	$170 \ \mu g/m^3$	500 μg/m³	N
CO	<6.2 ppm	9 ppm	N
4-PCH	$<1.2 \mu g/m^3$	$6.5 \mu g/m^3$	N
Formaldehyde	3.7 ppb	27 ppb	N
PM-10	NA*	50 μg/m³	NA*
CO2	610 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

NA*= Issue with PM-10 filter during sampling. Could not recover values. Recommend conduct post-testing for values to determine if below Max. Limit.

4th Floor (staff complaint area, PM-10 only) - February 16, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	$100 \mu g/m^3$	$50 \mu g/m^3$	Y

1st Floor Lobby (Pre-Testing, PM-10 only) - February 23, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	$87 \mu g/m^3$	$50 \mu g/m^3$	Y

5th Floor (Pre-Testing) - February 28, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	200 μg/m³	500 μg/m³	N
CO	<6.1 ppm	9 ppm	N
4-PCH	$<1.1 \mu g/m^3$	$6.5 \mu g/m^3$	N
Formaldehyde	4.2 ppb	27 ppb	N
PM-10	30 μg/m³	50 μg/m³	N
CO2	620 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m ³	5 mg/m³	N

6th Floor (Pre-Testing) - February 28, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	$180 \ \mu g/m^3$	500 μg/m ³	N
CO	<7.0 ppm	9 ppm	N
4-PCH	<1.1 μg/m³	$6.5 \mu g/m^3$	N
Formaldehyde	4.0 ppb	27 ppb	N
PM-10	52 μg/m³	50 μg/m³	Y
CO2	580 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m ³	5 mg/m³	N

2nd Floor (Pre-Testing) - March 1, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	$210 \ \mu g/m^{3}$	$500 \mu g/m^3$	N
CO	<6.3 ppm	9 ppm	N
4-PCH	$<1.1 \mu g/m^3$	$6.5 \mu g/m^3$	N
Formaldehyde	3.0 ppb	27 ppb	N
PM-10	160 μg/m³	50 μg/m³	Y
CO2	590 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

7th Floor (Pre-Testing) - March 1, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	$160 \mu g/m^3$	$500 \mu g/m^3$	N
CO	<6.1 ppm	9 ppm	N
4-PCH	$<1.1 \mu g/m^3$	6.5 μg/m³	N
Formaldehyde	3.4 ppb	27 ppb	N
PM-10	480 μg/m³	50 μg/m³	Y
CO2	630 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m ³	5 mg/m³	N

Post-Testing

4th Floor (Post-Testing) - April 30, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	190 μg/m³	500 μg/m ³	N
CO	<6.2 ppm	9 ppm	N
4-PCH	$<1.3 \mu g/m^3$	$6.5 \mu g/m^3$	N
Formaldehyde	1.7 ppb	27 ppb	N
PM-10	210 μg/m³	50 μg/m ³	Y
CO2	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

3rd Floor (Post-Testing) - May 7, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	$370 \mu g/m^3$	$500 \mu g/m^3$	N
CO	<6.1 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 μg/m³	N
Formaldehyde	13 ppb	27 ppb	N
PM-10	730 μg/m³	50 μg/m³	Y
CO2	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

3rd Floor (retest, PM-10 only) - May 14, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	$900 \mu g/m^3$	$50 \mu g/m^3$	Y

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	$170 \mu\text{g/m}^3$	$50 \mu g/m^3$	Y

{As of May 23, 2018, Boots Construction told S&R to discontinue particulate analysis by PM-10 and instead switch to particulate analysis by NIOSH Methods 0500 and 0600.}

5th Floor (Post-Testing) - July 5, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	180 μg/m³	500 μg/m ³	N
CO	<6.0 ppm	9 ppm	N
4-PCH	<1.3 μg/m³	6.5 μg/m³	N
Formaldehyde	8.7 ppb	27 ppb	N
Particulates- Respirable	<0.001 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m ³	15 mg/m ³	N
CO2	390 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

6th Floor (Post-Testing) - August 31, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	$150 \mu g/m^3$	500 μg/m³	N
CO	<6.5 ppm	9 ppm	N
4-PCH	<1.3 µg/m³	6.5 μg/m³	N
Formaldehyde	5.1 ppb	27 ppb	N
Particulates- Respirable	0.005 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m ³	15 mg/m ³	N
CO2	630 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

7th Floor (Post-Testing) - November 9, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	230 μg/m³	500 μg/m³	N
СО	<6.6 ppm	9 ppm	N
4-PCH	$<1.3 \mu g/m^3$	$6.5 \mu g/m^3$	N
Formaldehyde	3.5 ppb	27 ppb	N
Particulates- Respirable	0.105 mg/m³	5 mg/m³	N
Particulates- Total	0.167 mg/m ³	15 mg/m ³	N
CO2	530 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

2nd Floor (Post-Testing) - January 29, 2019

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	$100 \ \mu g/m^3$	$500 \mu g/m^3$	N
CO	<6.5 ppm	9 ppm	N
4-PCH	<1.3 μg/m³	6.5 μg/m³	N
Formaldehyde	4 ppb	27 ppb	N
Particulates- Respirable	0.071 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m ³	15 mg/m³	N
CO2	390 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

CONCLUSION

Based on the laboratory analysis data, conversations with Boots/EPA and visual inspections, S&R has determined that all of the clearance testing conducted has passed all applicable levels. S&R concludes that the IAQ portion of the renovation was a success and has been completed.

LIABILITY LIMITATIONS

S&R reserves the right to amend or alter this protocol as conditions change and materials not initially visible are revealed. S&R assumes no liability greater than the sum of the invoice for its services.

CLOSING COMMENTS

S&R appreciates the opportunity to assist with your indoor air quality needs and looks forward to working with you on future projects. If you have any questions regarding this report of findings, please do not hesitate to call us at (303) 297-1645.

CONFIDENTIALITY

This communication including all contents and attachments are confidential and may be subject to privilege.

Sincerely,

S&R ENVIRONMENTAL CONSULTING, INC.

Alex Green

Operations Manager

Appendices:

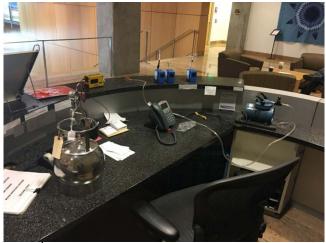
Appendix A: Site Photographs

Appendix B: EPA Air Testing Summary Sheet

Appendix C: Laboratory Analysis Results and Chain of Custodies

Appendix A:

Site Photographs



2nd Floor- Pre Testing Area and Equipment



7th Floor- Pre Testing Area and Equipment



2nd Floor- Post Testing Area and Equipment

Appendix B:

EPA Air Testing Summary Sheet





S & R Environmental Consulting, Inc.

5801 Logan Street Suite 200

Denver, CO 80216

Phone: 303-297-1645 Fax: 303-297-1646

S&R Environmental Consulting/ Boots Construction

Indoor Air Quality (IAQ) Testing Summary Sheet

EPA Denver Renovation Project 1595 Wynkoop St. Denver, CO 80202

3rd Floor (Pre-Testing)- January 18, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	120 μg/m³	500 μg/m³	N
СО	<9.9 ppm	9 ppm	Unknown**
4-PCH	<1.2 μg/m³	6.5 μg/m³	N
Formaldehyde	2.1 ppb	27 ppb	N
PM-10	NA*	50 μg/m³	NA*
CO ₂	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

4th Floor (Pre-Testing)- January 18, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	170 μg/m³	500 μg/m³	N
CO	<6.2 ppm	9 ppm	N
4-PCH	<1.2 μg/m³	6.5 μg/m³	N
Formaldehyde	3.7 ppb	27 ppb	N
PM-10	NA*	50 μg/m³	NA*
CO ₂	610 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

4th Floor (staff complaint area, PM-10 only)- February 16, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	100 μg/m³	50 μg/m³	Υ

1st Floor Lobby (Pre-Testing, PM-10 only)- February 23, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	87 μg/m³	50 μg/m³	Υ

5th Floor (Pre-Testing)- February 28, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	200 μg/m³	500 μg/m³	N
СО	<6.1 ppm	9 ppm	N
4-PCH	<1.1 μg/m³	6.5 μg/m³	N
Formaldehyde	4.2 ppb	27 ppb	N
PM-10	30 μg/m³	50 μg/m³	N
CO ₂	620 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m³	5 mg/m³	N

6th Floor (Pre-Testing)- February 28, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	180 μg/m³	500 μg/m³	N
CO	<7.0 ppm	9 ppm	N
4-PCH	<1.1 μg/m³	6.5 μg/m³	N
Formaldehyde	4.0 ppb	27 ppb	N
PM-10	52 μg/m³	50 μg/m³	Υ
CO ₂	580 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m³	5 mg/m³	N

2nd Floor (Pre-Testing)- March 1, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	210 μg/m³	500 μg/m³	N
СО	<6.3 ppm	9 ppm	N
4-PCH	<1.1 μg/m³	6.5 μg/m³	N
Formaldehyde	3.0 ppb	27 ppb	N
PM-10	160 μg/m³	50 μg/m³	Υ
CO ₂	590 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

7th Floor (Pre-Testing)- March 1, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	160 μg/m³	500 μg/m³	N
СО	<6.1 ppm	9 ppm	N
4-PCH	<1.1 μg/m³	6.5 μg/m³	N
Formaldehyde	3.4 ppb	27 ppb	N
PM-10	480 μg/m³	50 μg/m³	Υ
CO ₂	630 ppm	5,000 ppm	N
Caprolactam	<0.014 mg/m³	5 mg/m³	N

NA*= Issue with PM-10 filter during sampling. Could not recover values. Recommend conduct post-testing for values to determine if below Max. Limit.

Unknown**= Value was found to be less than 9.9 ppm but could not be exactly quantified due to the limit of detection being 9.9 ppm. Actual value may or may not be below 9 ppm. Upon laboratory explanation, limit of detection was high due to atmospheric pressure differential between location of calibration (Cinnaminson, NJ approx. 79' elevation) and sample location (Denver, CO approx. 5,280' elevation). Recommended to not use TO-15 Drager CMS for CO analysis and use real-time data logging meter or other method. TO-15 analysis and Drager CMS still appropriate for all other applicable analysis including CO2 since limit of detection is significantly different that Max. Limit.

4th Floor (Post-Testing)- April 30, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	190 μg/m³	500 μg/m³	N
СО	<6.2 ppm	9 ppm	N
4-PCH	<1.3 μg/m³	6.5 μg/m³	N
Formaldehyde	1.7 ppb	27 ppb	N
PM-10	210 μg/m³	50 μg/m³	Υ
CO ₂	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

3rd Floor (Post-Testing)- May 7, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	370 μg/m³	500 μg/m³	N
СО	<6.1 ppm	9 ppm	N
4-PCH	<1.3 μg/m³	6.5 μg/m³	N
Formaldehyde	13 ppb	27 ppb	N
PM-10	730 μg/m³	50 μg/m³	Υ
CO ₂	550 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

3rd Floor (retest, PM-10 only)- May 14, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	900 μg/m³	50 μg/m³	Υ

4th Floor (retest, PM-10 only)- May 14, 2018

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
PM-10	170 μg/m³	50 μg/m³	Υ

As of May 23, 2018, Boots Construction told S&R to discontinue particulate analysis by PM-10 and instead switch to particulate analysis by NIOSH Methods 0500 and 0600.

5th Floor (Post-Testing)- July 5, 2018

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Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	180 μg/m³	500 μg/m³	N
СО	<6.0 ppm	9 ppm	N
4-PCH	<1.3 μg/m³	6.5 μg/m³	N
Formaldehyde	8.7 ppb	27 ppb	N
Particulates- Respirable	<0.001 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m ³	15 mg/m³	N
CO ₂	390 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

6th Floor (Post-Testing)- August 31, 2018

0th 11001 (1 03t-1c3this)- August 31, 2010			
Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	150 μg/m³	500 μg/m³	N
СО	<6.5 ppm	9 ppm	N
4-PCH	<1.3 μg/m³	6.5 μg/m³	N
Formaldehyde	5.1 ppb	27 ppb	N
Particulates- Respirable	0.005 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m³	15 mg/m³	N
CO ₂	630 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

7th Floor (Post-Testing)- November 9, 2018

		,	
Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	230 μg/m³	500 μg/m³	N
СО	<6.6 ppm	9 ppm	N
4-PCH	<1.3 μg/m³	6.5 μg/m³	N
Formaldehyde	3.5 ppb	27 ppb	N
Particulates- Respirable	0.105 mg/m³	5 mg/m³	N
Particulates- Total	0.167 mg/m³	15 mg/m³	N
CO ₂	530 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m³	5 mg/m³	N

2nd Floor (Post-Testing)- January 29, 2019

Parameter	Result	Max. Limit	Value Exceeded (Y/N)
TVOC	100 μg/m³	500 μg/m³	N
СО	<6.5 ppm	9 ppm	N
4-PCH	<1.3 μg/m³	6.5 μg/m³	N
Formaldehyde	4 ppb	27 ppb	N
Particulates- Respirable	0.071 mg/m³	5 mg/m³	N
Particulates- Total	<0.001 mg/m³	15 mg/m³	N
CO ₂	390 ppm	5,000 ppm	N
Caprolactam	<0.015 mg/m ³	5 mg/m³	N

Appendix C:

Laboratory Analysis Results and Chain of Custodies



EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281800347

Attn: Alex Green Customer ID: SREC85

S&R Environmental Consulting, Inc. Customer PO:

5801 Logan Street, #200 Date Received: 1/23/2018

Denver, CO 80216

Phone: (303) 297-1645 EMSL Order: 281800347

Project: **EPA P-1&2: 1595 Wynkoop St.** EMSL Project ID:

Report Date: 1/31/2018 Date Analyzed: 1/30/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m³)	Reporting Limit (µg/m³)
281800347-0001	1P-PCH-1 / Phase One	24.5	< 0.030	<1.2	1.2
281800347-0002	1P-PCH-1 / Phase Two	24.5	< 0.030	<1.2	1.2
Desorption Blank	-	0	< 0.030	ND	NA

Notes:

- 1. Samples were received in acceptable condition unless otherwise noted.
- 2. These results relate only to the samples tested.
- 3. Sample results are not blank corrected unless otherwise noted.
- 4. Discernable field blank(s) submitted with samples if reported above.

TC/AS/VK/VMD

Analyst

Scott VanEtten, CIH- Lab Manager Or other approved signatory



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID: Customer ID:

281800348

SREC85

Customer PO: Project ID:

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200

Denver, CO 80216

Fax:

Phone:

(303) 297-1646 Collected:

(303) 297-1645

Received: 1/23/2018 Analyzed: 1/26/2018

Proj: EPA P-1&2: 1595 Wynkoop St.

Test Report: Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Co	ncentration	Reporting Limit
1P-For-1 281800348-0001	Phase One	25.5 L	0.067 μg	0.0026 mg/m³	0.0021 ppm	0.0020 mg/m³
2P-For-1 281800348-0002	Phase Two	24 L	0.11 µg	0.0046 mg/m³	0.0037 ppm	0.0021 mg/m³

N/A = Not Applicable

Analyst(s)

Alicia Shafer

Scott Van Etten, CIH, Laboratory Manager

SWVayEll

Any questions please contact Scott VanEtten.

Initial report from: 02/02/2018 12:10:37

- 1. Samples were received in acceptable condition unless otherwise noted
- These results relate only to the samples tested.
 Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
- 4. A discernable Field Blank was submitted if listed above as a discrete sample

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

Controlled Document - Industrial Hygiene COC - R4 - 9/8/2015

Page

of.



Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only)

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 Fax: (856) 858-3502

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68	1. A.	Sampled By (Signature)	Sampled		order:	Purchase Order:	1/22/18	Date of Shipment: 1/22/18		Shipmer	# Samples in Shipment:
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Client ID #:		AME	SAI	Bill To Company:	Bill To			es	ame: Hlex Green	ontact Na	Report To Contact Name:

1



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800062

EMSL Sample #: 491800062-1

Customer ID: SREC85

Customer PO: **SREC8596249191**

Attn: Alex Green

S&R Environmental Consulting, Inc. 5801 Logan Street, #200

Denver, CO 80216

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 1/18/2018
Date Received: 1/23/2018

Project: 1595 Wynkoop St. Pl. 2

Sample ID: 1P-PM10

Analysis Initial	Analysis Date 01/26/2018	Analyst Init. TP	<u>Lab File ID</u> J3116.D	Canister ID E15527	Sample Vol. 497.5 cc	<u>Dil. Factor</u> 1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH REL	OSHA PEL
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3 >	ug/m3 >
Propylene	NC	115-07-1	42.08	ND		ND	N.E.	N.E.
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000	4900000
Freon 114(1,2-Dichlorotetrafluoroethan		76-14-2	170.90	ND		ND	7000000	7000000
Chloromethane	NC	74-87-3	50.49	ND		ND	LFC	210000
n-Butane		106-97-8	58.12	2.5		5.9	1900000	1900000
Vinyl chloride	С	75-01-4	62.50	ND		ND	LFC	2600
1,3-Butadiene	С	106-99-0	54.09	ND		ND	LFC	2200
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC	78000
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC	2600000
Ethanol		64-17-5	46.07	38		72	1900000	1900000
Bromoethene(Vinyl bromide)	С	593-60-2	106.90	ND		ND	LFC	N.E.
Freon 11(Trichlorofluoromethane)		75-69-4	137.40	ND		ND	5600000	5600000
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	5.6		14	980000	980000
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000	7700000
Acetone	NC	67-64-1	58.08	4.0		10	590000	2400000
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000	790000
Acetonitrile	NC	75-05-8	41.00	6.9		12	34000	67000
Tertiary butyl alcohol(TBA)		75-65-0	74.12	ND		ND	300000	300000
Bromoethane(Ethyl bromide)		74-96-4	108.00	ND		ND	880000	880000
3-Chloropropene(Allyl chloride)	С	107-05-1	76.53	ND		ND	3100	3100
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100	62000
Methylene chloride	С	75-09-2	84.94	ND		ND	LFC	87000
Acrylonitrile	С	107-13-1	53.00	ND		ND	2200	4300
Methyl-tert-butyl ether(MTBE)	С	1634-04-4	88.15	ND		ND	N.E.	N.E.
trans-1,2-Dichloroethene		156-60-5	96.94	ND		ND	790000	790000
n-Hexane	NC	110-54-3	86.17	ND		ND	180000	1800000
1,1-Dichloroethane	С	75-34-3	98.96	ND		ND	400000	400000
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000	N.E.
2-Butanone(MEK)	NC	78-93-3	72.10	ND		ND	590000	590000
cis-1,2-Dichloroethene		156-59-2	96.94	ND		ND	790000	790000
Ethyl acetate	NC	141-78-6	88.10	0.67		2.4	1400000	1400000
Chloroform	С	67-66-3	119.40	ND		ND	9800	240000
Tetrahydrofuran	NC NC	109-99-9	72.11	ND		ND	590000	590000
1,1,1-Trichloroethane	NC NC	71-55-6	133.40	ND		ND	1900000	1900000
Cyclohexane	NC NC	110-82-7	84.16	ND		ND	1000000	1000000
		540-84-1	114.20	ND		ND	N.E.	N.E.
2,2,4-Trimethylpentane(Isooctane)	 C						.	1
Carbon tetrachloride		56-23-5	153.80	ND	-	ND	13000	63000
n-Heptane	NC C	142-82-5	100.20	ND	-	ND	350000	2000000
1,2-Dichloroethane	С	107-06-2	98.96	ND		ND	4000	200000
Benzene	С	71-43-2	78.11	ND		ND	320	3200
Trichloroethene	C	79-01-6	131.40	ND	-	ND	130000	540000
1,2-Dichloropropane	C	78-87-5	113.00	ND		ND	LFC	350000
Methyl Methacrylate	NC	80-62-6	100.12	ND		ND	410000	410000
Bromodichloromethane	С	75-27-4	163.80	ND		ND	N.E.	N.E.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800062 EMSL Sample #: 491800062-1 Customer ID: SREC85

Customer PO: SREC8596249191

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 1/18/2018
Date Received: 1/23/2018

Project: 1595 Wynkoop St. Pl. 2 Sample ID: 1P-PM10

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	<u>Canister ID</u>	<u>Sample Vol.</u>	Dil. Factor
Initial	01/26/2018	TP	J3116.D	E15527	497.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH REL		OSHA PEL	
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3	>
1,4-Dioxane	С	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	С	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	NC	108-88-3	92.14	1.1		4.1	380000		750000	
trans-1,3-Dichloropropene**	С	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	С	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	С	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane		124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	С	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	С	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	С	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	С	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene		622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene		95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000	
1,3-Dichlorobenzene	-	541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	С	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	О	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	С	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	С	91-20-3	128.17	ND		ND	52000		52000	
**The concentrations of each isomer should be ad		isomers are		The > colu	mn is u	sed to flag exceed	lences as marked	1		6

^{**}The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

Exposure Limit Definitions

REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions

NIOSH= The National Institute for Occupational Safety and Health

Reference

Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)

Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)

C= Carcinogenic

NC= Non-Carcinogenic

Compound Exposure Definitions

NE= No Limit Established

LFC= Lowest Feasible Concentration

NS= No Sscreening Value

Qualifier Definitions

ND = Non Detect

 $\label{eq:B} B = \text{Compound also found in method blank}.$

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800062

EMSL Sample #: 491800062-1

Customer ID: SREC85

Phone:

Customer PO: SREC859624919

303-297-1645

Attn: Alex Green

 S&R Environmental Consulting, Inc.
 Fax:
 303-297-1646

 5801 Logan Street, #200
 Date Collected:
 1/18/2018

 Denver, CO 80216
 Date Received:
 1/23/2018

Sample ID: 1P-PM10

Project: 1595 Wynkoop St. Pl. 2

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3116.D	E15527	497.5 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	D	Result ug/m3	Use and Possible Sources
					Aerosol spray products for some paints, cosmetics,
n-Butane	106-97-8	2.5		5.9	automotive products, leather treatments, pesticides. ²
					Hand sanitizers, disinfecting wipes. Personal care products:
					nail polish, nail polish remover, colognes, perfumes,
Ethanol	64-17-5	38		72	rubbing alcohol, hair spray. ²
					Eye Glass Cleaners. Disinfecting wipes. Personal care
					products: nail polish, nail polish remover, colognes,
Isopropyl alcohol(2-Propanol)	67-63-0	5.6		14	perfumes, rubbing alcohol, hair spray. ²
					Rubber cement, cleaning fluids, scented candles and nail
Acetone	67-64-1	4.0		10	polish remover.1
					Predominantly used as a solvent in the manufacture of
					pharmaceuticals and in chemical laboratories for the
Acetonitrile	75-05-8	6.9		12	detection of materials such as pesticide residues.6
					Personal care products: nail polish, nail polish remover,
Ethyl acetate	141-78-6	0.67		2.4	colognes, perfumes, rubbing alcohol, hair spray. ²
					Toluene is produced in the process of making gasoline and
					other fuels from crude oil and making coke from coal. Will
					occur in gasoline exhaust. Toluene is used in making
					paints, paint thinners, fingernail polish, lacquers, adhesives,
					and rubber and in some printing and leather tanning
Toluene	108-88-3	1.1		4.1	processes. ⁴

Qualifier Definitions

ND = Non Detect

- $\ensuremath{\mathsf{B}}$ = Compound also found in method blank.
- E= Estimated concentration exceeding upper calibration range.
- D= Result reported from diluted analysis.

Sources References

- $\hbox{(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June~26, 2012 }$
- (2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
- $(3) \ EPA, \ Air \ \& \ Radiation, \ TTN \ Web Technology \ Transfer \ Network Air \ Toxics \ Web \ site, \ various \ years.$
- (4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
- (5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
- (6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
- (7) World Health Organization,
- (8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
- (9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
- (10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
- (11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800062

EMSL Sample #: 491800062-2

Customer ID: SREC85

Customer PO: **SREC8596249191**

Attn: Alex Green S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 1/18/2018
Date Received: 1/23/2018

Project: 1595 Wynkoop St. Pl. 2 Sample ID: 2P-PM10

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.	ila Goria E	•	Result		Result	NIOSH RE		OSHA PE	L
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	П
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan		76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	0.51		1.0	LFC		210000	
n-Butane		106-97-8	58.12	2.2		5.3	1900000		1900000	
Vinyl chloride	С	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	С	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol		64-17-5	46.07	54	Е	100	1900000		1900000	
Bromoethene(Vinyl bromide)	С	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)		75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	6.2		15	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	4.3		10	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	19		32	34000		67000	
Tertiary butyl alcohol(TBA)		75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)		74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	С	107-05-1	76.53	ND		ND	3100		3100	\top
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	+
Methylene chloride	С	75-09-2	84.94	ND		ND	LFC		87000	+
Acrylonitrile	C	107-13-1	53.00	ND		ND	2200		4300	+
Methyl-tert-butyl ether(MTBE)	С	1634-04-4	88.15	ND		ND	N.E.		N.E.	_
trans-1,2-Dichloroethene		156-60-5	96.94	ND		ND	790000		790000	-
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	-
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000		400000	+
Vinyl acetate	NC NC	108-05-4	86.00	ND		ND	14000	1	N.E.	+
2-Butanone(MEK)	NC NC	78-93-3	72.10	ND		ND	590000	1	590000	+
cis-1,2-Dichloroethene		156-59-2	96.94	ND		ND	790000		790000	+
· · · · · · · · · · · · · · · · · · ·	NC	141-78-6	88.10	1.0		3.7	1400000		1400000	+
Ethyl acetate	C	67-66-3					1			+
Chloroform	NC NC		119.40	ND ND		ND ND	9800	+	240000 590000	+
Tetrahydrofuran		109-99-9	72.11	ł			590000	+		+
1,1,1-Trichloroethane	NC NC	71-55-6	133.40	ND		ND	1900000		1900000	+
Cyclohexane	NC	110-82-7	84.16	ND		ND	1000000	+	1000000	+
2,2,4-Trimethylpentane(Isooctane)		540-84-1	114.20	ND		ND	N.E.	+	N.E.	+
Carbon tetrachloride	С	56-23-5	153.80	ND		ND	13000		63000	—
n-Heptane	NC	142-82-5	100.20	ND		ND	350000	+	2000000	\dashv
1,2-Dichloroethane	С	107-06-2	98.96	ND		ND	4000		200000	$\perp\!\!\!\perp$
Benzene	С	71-43-2	78.11	ND		ND	320		3200	\bot
Trichloroethene	С	79-01-6	131.40	ND		ND	130000		540000	\bot
1,2-Dichloropropane	С	78-87-5	113.00	ND		ND	LFC		350000	
Methyl Methacrylate	NC	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	С	75-27-4	163.80	ND		ND	N.E.		N.E.	



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EMSL Order #: 491800062 EMSL Sample #: 491800062-2 Customer ID: SREC85

Customer PO: SREC8596249191

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Project: 1595 Wynkoop St. Pl. 2

Phone: 303-297-1645 Fax: 303-297-1646

Date Collected: 1/18/2018 Date Received: 1/23/2018

Sample ID: 2P-PM10

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

NIOSH and OSHA Exposure Limit Comparisons

Tox.			Result		Result	NIOSH REL		OSHA PEL	
Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3	>
С	123-91-1	88.12	ND		ND	3600		360000	Ī
NC	108-10-1	100.20	ND		ND	200000		410000	
С	10061-01-5	111.00	ND		ND	4500		N.E.	
NC	108-88-3	92.14	1.4		5.2	380000		750000	
С	10061-02-6	111.00	ND		ND	4500		N.E.	
С	79-00-5	133.40	ND		ND	55000		55000	
NC	591-78-6	100.10	ND		ND	4100		410000	
С	127-18-4	165.80	ND		ND	LFC		680000	Ī
	124-48-1	208.30	ND		ND	N.E.		N.E.	
С	106-93-4	187.80	ND		ND	350		150000	Ī
NC	108-90-7	112.60	ND		ND	N.E.		350000	
С	100-41-4	106.20	ND		ND	430000		430000	
NC	1330-20-7	106.20	ND		ND	430000		430000	
NC	95-47-6	106.20	ND		ND	430000		430000	
NC	100-42-5	104.10	ND		ND	210000		430000	
NC	98-82-8	120.19	ND		ND	250000		250000	
С	75-25-2	252.80	ND		ND	5200		5200	
С	79-34-5	167.90	ND		ND	6900		34000	
	622-96-8	120.20	ND		ND	N.E.		N.E.	
NC	108-67-8	120.20	ND		ND	120000		120000	
	95-49-8	126.60	ND		ND	260000		N.E.	
NC	95-63-6	120.20	ND		ND	120000		120000	L
	541-73-1	147.00	ND		ND	N.E.		N.E.	
С	106-46-7	147.00	ND		ND	LFC		450000	
С	100-44-7	126.00	ND		ND	5200		5200	
NC	95-50-1	147.00	ND		ND	300000		300000	
NC	120-82-1	181.50	ND		ND	37000		N.E.	
С	87-68-3	260.80	ND		ND	210		N.E.	
С	91-20-3	128.17	ND		ND	52000		52000	
	Basis C	Basis CAS# C 123-91-1 NC 108-10-1 C 10061-01-5 NC 108-88-3 C 10061-02-6 C 79-00-5 NC 591-78-6 C 127-18-4 124-48-1 C 106-93-4 NC 108-90-7 C 100-41-4 NC 1330-20-7 NC 95-47-6 NC 100-42-5 NC 98-82-8 C 75-25-2 C 79-34-5 622-96-8 NC 108-67-8 95-49-8 NC 95-63-6 541-73-1 C 100-44-7 NC 95-50-1 NC 120-82-1 C 87-68-3	Basis CAS# MW C 123-91-1 88.12 NC 108-10-1 100.20 C 10061-01-5 111.00 NC 108-88-3 92.14 C 10061-02-6 111.00 C 79-00-5 133.40 NC 591-78-6 100.10 C 127-18-4 165.80 124-48-1 208.30 C 106-93-4 187.80 NC 108-90-7 112.60 C 100-41-4 106.20 NC 1330-20-7 106.20 NC 95-47-6 106.20 NC 95-47-6 106.20 NC 100-42-5 104.10 NC 98-82-8 120.19 C 75-25-2 252.80 C 79-34-5 167.90 622-96-8 120.20 NC 108-67-8 120.20 NC 95-63-6 120.20	Basis CAS# MW ppbv C 123-91-1 88.12 ND NC 108-10-1 100.20 ND C 10061-01-5 111.00 ND NC 108-88-3 92.14 1.4 C 10061-02-6 111.00 ND C 79-00-5 133.40 ND NC 591-78-6 100.10 ND C 127-18-4 165.80 ND C 127-18-4 165.80 ND C 106-93-4 187.80 ND NC 108-90-7 112.60 ND NC 108-90-7 112.60 ND NC 1330-20-7 106.20 ND NC 1330-20-7 106.20 ND NC 95-47-6 106.20 ND NC 95-47-6 106.20 ND NC 98-82-8 120.19 ND C 79-34-5 167.90 ND	Basis CAS# MW ppbv Q C 123-91-1 88.12 ND NC 108-10-1 100.20 ND C 10061-01-5 111.00 ND NC 108-88-3 92.14 1.4 C 10061-02-6 111.00 ND C 79-00-5 133.40 ND NC 591-78-6 100.10 ND NC 591-78-6 100.10 ND C 127-18-4 165.80 ND NC 106-93-4 187.80 ND NC 106-93-4 187.80 ND NC 108-90-7 112.60 ND NC 108-90-7 112.60 ND NC 1330-20-7 106.20 ND NC 95-47-6 106.20 ND NC 95-47-6 106.20 ND NC 98-82-8 120.19 ND C 75-25-2 252.80	Basis CAS# MW ppbv Q ug/m3 C 123-91-1 88.12 ND ND ND NC 108-10-1 100.20 ND ND ND NC 108-10-1 100.20 ND ND ND NC 1061-02-6 111.00 ND ND ND C 10061-02-6 111.00 ND ND ND C 79-00-5 133.40 ND ND ND NC 591-78-6 100.10 ND ND ND NC 591-78-6 100.10 ND ND ND ND ND ND ND ND ND C 127-18-4 165.80 ND ND ND ND C 126-93-4 187.80 ND ND ND ND NC 108-93-4 187.80 ND ND ND ND NC 108-90-7	Basis CAS# MW ppbv Q ug/m3 ug/m3 C 123-91-1 88.12 ND ND ND 3600 NC 108-10-1 100.20 ND ND ND 200000 C 10061-01-5 111.00 ND ND ND 4500 NC 108-88-3 92.14 1.4 5.2 380000 C 10061-02-6 111.00 ND ND ND 4500 C 79-00-5 133.40 ND ND ND 55000 NC 79-00-5 133.40 ND ND ND 4100 C 79-00-5 133.40 ND ND ND 4100 C 79-78-6 100.10 ND ND ND 4100 C 127-18-4 165.80 ND ND ND NE C 106-93-4 187.80 ND ND ND NE <t< td=""><td>Basis CAS# MW ppbv Q ug/m3 ug/m3 > C 123-91-1 88.12 ND ND 3600 ND NC 108-10-1 100.20 ND ND ND 200000 C 10061-01-5 111.00 ND ND ND 4500 NC 108-88-3 92.14 1.4 5.2 380000 0 C 10061-02-6 111.00 ND ND ND 4500 C 79-00-5 133.40 ND ND ND 4500 NC 591-78-6 100.10 ND ND ND 4100 C 127-18-4 165.80 ND ND ND LFC 124-48-1 208.30 ND ND ND NE. C 106-93-4 187.80 ND ND ND NE. NC 106-93-4 187.80 ND ND ND</td><td> Basis CAS# MW ppbv Q ug/m3 ug/m3 > ug/m3 C 123-91-1 88.12 ND ND 3600 360000 NC 108-10-1 100.20 ND ND 200000 4100000 C 10061-01-5 111.00 ND ND 4500 N.E. NE. NC 108-8-3 92.14 1.4 5.2 380000 750000 N.E. C 10061-02-6 111.00 ND ND ND 4500 N.E. NE. C 79-00-5 133.40 ND ND ND 4500 N.E. NE. NC 591-78-6 100.10 ND ND ND 4100 410000 C 127-18-4 165.80 ND ND ND N.E. N.E. </td></t<>	Basis CAS# MW ppbv Q ug/m3 ug/m3 > C 123-91-1 88.12 ND ND 3600 ND NC 108-10-1 100.20 ND ND ND 200000 C 10061-01-5 111.00 ND ND ND 4500 NC 108-88-3 92.14 1.4 5.2 380000 0 C 10061-02-6 111.00 ND ND ND 4500 C 79-00-5 133.40 ND ND ND 4500 NC 591-78-6 100.10 ND ND ND 4100 C 127-18-4 165.80 ND ND ND LFC 124-48-1 208.30 ND ND ND NE. C 106-93-4 187.80 ND ND ND NE. NC 106-93-4 187.80 ND ND ND	Basis CAS# MW ppbv Q ug/m3 ug/m3 > ug/m3 C 123-91-1 88.12 ND ND 3600 360000 NC 108-10-1 100.20 ND ND 200000 4100000 C 10061-01-5 111.00 ND ND 4500 N.E. NE. NC 108-8-3 92.14 1.4 5.2 380000 750000 N.E. C 10061-02-6 111.00 ND ND ND 4500 N.E. NE. C 79-00-5 133.40 ND ND ND 4500 N.E. NE. NC 591-78-6 100.10 ND ND ND 4100 410000 C 127-18-4 165.80 ND ND ND N.E. N.E.

^{**}The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

Exposure Limit Definitions

REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions

NIOSH= The National Institute for Occupational Safety and Health

Reference

Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)

Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)

C= Carcinogenic

NC= Non-Carcinogenic

Compound Exposure Definitions

NE= No Limit Established

LFC= Lowest Feasible Concentration

NS= No Sscreening Value

Qualifier Definitions

ND = Non Detect

V98

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.



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EMSL Order #: 491800062 EMSL Sample #: 491800062-2 Customer ID: SREC85

Customer PO: SREC859624919

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: **303-297-1645**Fax: **303-297-1646**

Date Collected: 1/18/2018
Date Received: 1/23/2018

Project: 1595 Wynkoop St. Pl. 2 Sample ID: 2P-PM10

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

Possible Background Sources of Contaminants

	J	5 1		5 1	
	0.40"	Result		Result	
Target Compounds	CAS#	ppbv	Q	ug/m3	Use and Possible Sources
					Most (99%) of the chloromethane in the environment
					comes from natural sources. Because chloromethane is
					made in the oceans by natural processes, it is present in air
					all over the world. In most areas, the outside air contains
					less than 1 part of chloromethane in a billion parts of air
					(ppb). In cities, human activities, mostly combustion and manufacturing, add to the chloromethane in the air.
					resulting in somewhat higher levels, up to 1 ppb. Cigarette
					smoke, polystyrene insulation, and aerosol propellants;
					home burning of wood, coal, or certain plastics; and
Chloromethane	74-87-3	0.51		1.0	chlorinated swimming pools. ⁴
Chiloroffictionic	14 01 0	0.01		1.0	Aerosol spray products for some paints, cosmetics,
n-Butane	106-97-8	2.2		5.3	automotive products, leather treatments, pesticides. ²
					Hand sanitizers, disinfecting wipes. Personal care products:
					nail polish, nail polish remover, colognes, perfumes,
Ethanol	64-17-5	54	Е	100	rubbing alcohol, hair spray. 2
					Eye Glass Cleaners. Disinfecting wipes. Personal care
					products: nail polish, nail polish remover, colognes,
Isopropyl alcohol(2-Propanol)	67-63-0	6.2		15	perfumes, rubbing alcohol, hair spray. ²
					Rubber cement, cleaning fluids, scented candles and nail
Acetone	67-64-1	4.3		10	polish remover. ¹
					Predominantly used as a solvent in the manufacture of
					pharmaceuticals and in chemical laboratories for the
Acetonitrile	75-05-8	19		32	detection of materials such as pesticide residues. ⁶ Personal care products: nail polish, nail polish remover,
E	444 70 0	4.0			
Ethyl acetate	141-78-6	1.0		3.7	colognes, perfumes, rubbing alcohol, hair spray. ² Toluene is produced in the process of making gasoline and
					other fuels from crude oil and making coke from coal. Will
					occur in gasoline exhaust. Toluene is used in making
					paints, paint thinners, fingernail polish, lacquers, adhesives,
					and rubber and in some printing and leather tanning
Toluene	108-88-3	1.4		5.2	processes. ⁴

Qualifier Definitions

ND = Non Detect

- $\ensuremath{\mathsf{B}}$ = Compound also found in method blank.
- E= Estimated concentration exceeding upper calibration range.
- D= Result reported from diluted analysis.

Sources References

- (1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
- (2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
- (3) EPA, Air & Radiation, TTN Web Technology Transfer NetworkAir Toxics Web site, various years.
- (4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
- (5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
- (6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
- (7) World Health Organization,
- (8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
- (9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
- (10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
- (11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800062 Customer ID: SREC85

Customer PO: SREC8596249191

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: 303-297-1645

Fax: 303-297-1646

Date Collected: 1/18/2018 Date Received: 1/23/2018

Project: 1595 Wynkoop St. Pl. 2

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time		
491800062-0001	1P-TO15	1/18/2018	11:30 AM		
491800062-0002	2P-TO15	1/18/2018	11:35 AM		

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Revision Revision Comments Report Date: 2/6/2018 R0 Initial Report R1 2/7/2018 Revised sample IDs

> Marjorie Howley, Laboratory Manager or other approved signatory

Majour Howley

Test results meet all NELAP requirements unless otherwise specified.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800062
EMSL Sample #: 491800062-1
Customer ID: SREC85

Customer PO: SREC859624919

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 1/18/2018
Date Received: 1/23/2018

Project: 1595 Wynkoop St. Pl. 2 Sample ID: 1P-T015

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	<u>Canister ID</u>	<u>Sample Vol.</u>	Dil. Factor
Initial	01/26/2018	TP	J3116.D	E15527	497.5 cc	1

Target Compound Results Summary

Result RL Result RL										
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments		
Propylene	115-07-1	42.08	ND	1.0		ND	1.7			
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5			
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5			
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0			
n-Butane	106-97-8	58.12	2.5	0.50		5.9	1.2			
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3			
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1			
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9			
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3			
Ethanol	64-17-5	46.07	38	0.50		72	0.94			
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2			
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8			
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	5.6	0.50		14	1.2			
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8			
Acetone	67-64-1	58.08	4.0	0.50		10	1.2			
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0			
Acetonitrile	75-05-8	41.00	6.9	0.50		12	0.84			
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5			
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2			
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6			
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6			
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7			
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1			
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8			
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0			
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8			
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0			
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8			
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5			
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0			
Ethyl acetate	141-78-6	88.10	0.67	0.50		2.4	1.8			
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4			
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5			
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7			
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7			
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3			
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1			
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0			
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0			
Benzene	71-43-2	78.11	ND	0.50		ND	1.6			
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7			
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3			
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0			
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3			
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8			
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0			



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EMSL Order #: 491800062 491800062-1 EMSL Sample #: Customer ID: SREC85

Customer PO: SREC859624919

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: 303-297-1645 Fax: 303-297-1646

Date Collected: 1/18/2018 Date Received: 1/23/2018

Project: 1595 Wynkoop St. Pl. 2 Sample ID: 1P-T015

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Target Compound Results Summary

			Result	RL	Ĺ	Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.1	0.50		4.1	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concent	rations:		59	ppbv		120	ug/m3	

Result Spike Recovery Surrogate 4-Bromofluorobenzene 10 10 100%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800062
EMSL Sample #: 491800062-2
Customer ID: SREC85

Customer PO: SREC859624919

Phone: 303-297-1645

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Fax: **303-297-1646**Date Collected: **1/18/2018**

Date Collected: 1/18/2018

Date Received: 1/23/2018

Project: 1595 Wynkoop St. Pl. 2 Sample ID: 2P-T015

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	<u>Canister ID</u>	Sample Vol.	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

Target Compound Results Summary

Result RL Result RL										
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments		
Propylene	115-07-1	42.08	ND	1.0		ND	1.7			
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5			
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5			
Chloromethane	74-87-3	50.49	0.51	0.50		1.0	1.0			
n-Butane	106-97-8	58.12	2.2	0.50		5.3	1.2			
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3			
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1			
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9			
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3			
Ethanol	64-17-5	46.07	54	0.50	Е	100	0.94			
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2			
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8			
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	6.2	0.50		15	1.2			
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8			
Acetone	67-64-1	58.08	4.3	0.50		10	1.2			
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0			
Acetonitrile	75-05-8	41.00	19	0.50		32	0.84			
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5			
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2			
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6			
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6			
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7			
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1			
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8			
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0			
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8			
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0			
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8			
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5			
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0			
Ethyl acetate	141-78-6	88.10	1.0	0.50		3.7	1.8			
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4			
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5			
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7			
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7			
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3			
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1			
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0			
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0			
Benzene	71-43-2	78.11	ND	0.50		ND	1.6			
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7			
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3			
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0			
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3			
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8			
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50	<u> </u>	ND	2.0			



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800062 491800062-2 EMSL Sample #: Customer ID: SREC85

Customer PO: SREC859624919

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: 303-297-1645 303-297-1646 Fax:

Date Collected: 1/18/2018 Date Received: 1/23/2018

Project: 1595 Wynkoop St. Pl. 2

Sample ID: 2P-T015

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	01/26/2018	TP	J3117.D	E15528	310 cc	1

Target Compound Results Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.4	0.50		5.2	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations	:		89	ppbv		170	ug/m3	

Result **Spike** Surrogate Recovery 10 10 100% 4-Bromofluorobenzene

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

USEPA TO-15

External Chain of Custody/ Field Test Data Sheet

EMSI. Analytical, Inc. 200 Route 130 North Cinnaminson, NJ 08077 Ph. (800) 220-3676

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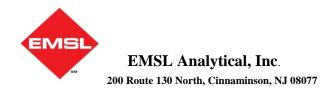


TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helds to held an addition to the Chain of Custody form. This information helds to held an addition to the Chain of Custody form. This information helds to held to held the state of the control of the custody form. This information helds to held the state of the custody form. This information helds to held the state of the custody form. This information helds to held the state of the custody form. This information helds to held the state of the custody form.

Company: SER Environmental Constitution,
Contact Person:
Name: Alex Green
E-mail: alex @ Spenviron Mental Consulting. Com
Additional E-mails:
Telephone #: 303 - 297 - 1645
Library Search requested: [] YES [NO
A library search (aka Tentatively Identified Compounds) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample. Sample Type:
Indoor Air Quality (Home/Office) [] Soil Gas/Sub Slab [] IAQ (Industrial) [] Other: Sample Description:
PLEASE NOTE: The result forms that we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.
OSHA PELs/NIOSH RELs combined form 1Potential Sources of Compounds found in your IAQ sample
[] EPA RSLs - 5/2016 Blended for THQ=0.1 [] TVOC (Library Search Required for this format)
[] NJ DEP 1/2013 - Circle one: Indoor Air Soil Gas [] Ohlo 4/2013 - Circle one: Residential Commercial [] NC DENR 4/2014 - Circle one: Residential Non-residentia [] Indiana Dept Env Mgmt Screeening Levels 3/2016
[] PA DEP - 11/2016 Indoor Air [] Vermont DEP IROCP 4/2012 (soil gas only)
[] PA DEP- 11/2016: Sub Siab Soil Gas OR Near Source Soil Gas [] California OEHHA 2/2012
[] CA HHSL 11/2004 - Circle on Indoor Air Soil Gas [] Other, These are the compounds I want reported:
Additional analyses that can be performed from your canister. Please note: there is an additional charge for any of the tests below.
US EPA TO-3 via GC/FID (choose one below): ASTM-D5504 via GC/SCD (choose one below): **
[] C ₁ -C ₆ hydrocarbons [] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS) [] Methane only [] H ₂ S only
*Note: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so that samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report.
We can provide the following CMS tests from your canisters. Please note that these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contact your sales rep for the proper media. Please note: there is an additional charge for any of the tests
Draeger CMS Analyzer: [CO 1CO ₂ []NH ₃ []O2 []Water Vapor
Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure that your project scope is fully addressed. Cans may be retained for a longer period of time but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

T:\TO15Data\Controlled Documents\Locally Controlled Documents\TO-15 Sample Information_R8_2017_03_02



EMSL Order ID: 491800062

Attn: Alex Green Customer ID: SREC85

S&R Environmental Consulting

508 Logan St.#200 Date Received: 1/23/2018

Denver, Co 80216

Project: 1595 Wynkoop St, Pl. 2

Report Date: 2/7/2018 Data Analyzed: 1/25/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800062-1	1P-TO15	Carbon dioxide	400	550
491800062-1	1P-TO15	Carbon monoxide	9.9	<9.9
491800062-2	2P-TO15	Carbon dioxide	250	610
491800062-2	2P-TO15	Carbon monoxide	6.2	<6.2

T. Peters	Marge Howley
Analyst	Lab Manager

USEPA TO-15

External Chain of Custody/ Field Test Data Sheet EMSL Order Number (Lab Use Only):

Purchasa Order: CC - 5 REC 85 - 862 49 19 Landfill Vent Soll G88 Sample Collection Zip Code: 80202 11A frieldmA \toobn1 >< CHANA 200 Routs 130 North Climarninson, NJ-08077 Fh. (600) 220-3675 Fax (856) 786-0527 Other Arrefysis LIBRARY SEARCH Sempled By (Sign): NUDEP LLTO-15 Sampled By (Name): Total # of Samples: AL-OT A938UX Date Shipped: 1/ 金田島 Flow Confoller 7879 1880 Page 10 Results Chily (Standard Lab Report) Ple2 0 Lab Use Only 0 C3549 - 29.8 Canister Information ч Concer Wynhoop Hall Deliverables (Surchange may apply)
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P-T015 by Sap

RECEIVED EMSL CIMNAMINSON, N.J.

TO-15 Sample Information
Please fill out this worksheet in addition to the Chain of Custody form. This Information helps பூட்டு பூடி
your samples, achieve requested TAT and provide you with helpful Interpretation Information.

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<u> E-mall:</u>	alex @ STENVISONA	rental Consulting. Com
Additio	na) E-mails:	
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()	Indoor Air Quality (Home/Office) IAQ (Industrial) Other: p e Description:	[] Soll Gas/Sub Slab
criteria	E NOTE: The result forms that we provide will not indicate the catablished by any regulatory agency. If you would like to receive.	cate whether your results have exceeded any Exposure Limit e that Information, please check off below which regulatory
	OSHA PELS/NIOSH RELS combined form EPA RSLs - 52016 Rended for THQ-1.0 and THQ-0.1 NJ DEP 1/2013 - Circle one: Indoor Air Soil Gas NC DENR 4/2014 - Circle one: Residential Non-residentia	Potential Sources of Compounds found in your IAQ sample [] TVOC (Library Search Required for this format) [] Ohio 42019 -Circle one: Residential Commercial [] Indiana Dept Env Mgmt Screeening Levels 32016
1 1	PA DEP • 11/2016 Indoor Air	[] Vermont DEP IROCP 42012 (soll gas only)
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iddition elow.	al analyses that can be performed from your canister.	Please note: there is an additional charge for any of the testa
USE	PA TO-3 via GOFID (choose one below):	STM-D5504 va gc/sco (choose one below); **
	C ₁ -C ₄ hydrocarbons [Methane only [] Sulfur Scan (H ₂ 9, CO9, MoSH, EtSH, DMS)] H ₂ S only
Not in the le	2: Hold time for sulfur gases is 1 day from collection b prior to noon on Friday, Analysis performed out of h	n. Please schedule your sample collection so that samples are received old time will have a notation in the report.
urpose spor); p	s ONLY,EMSL recommends alternate field sampling lease contact your sales rep for the proper media. Ples	lease note that these tests are to be used for IAQ/Screening techniques for these parameters (with the exception of water ase note: there is an additional charge for any of the tests
	or CMS Analyzer: CO 1, CO ₂ []NH ₃ []O2 []Wate	n Vapor
our resp	uits promptly to ensure that your project scope is fully	tained for one day after results are reported. Flease review addressed. Cans may be retained for a longer period of time or customer account representative quickly. Thank you.

T:\TO15Data\Controlled Documents\Locally Controlled Documents\TO-15 Sample Information_R8_2017_03_02



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: wohl-lab.org

ALEX GREEN
S & R ENVIRONMENTAL CONSULTING
STE 200
5801 LOGAN ST
DENVER, CO 80216

Lab Workorder ID 363825

Visit/Project ID 1595 WYNKOOP ST EPA

PO 18013

Received January 23, 2018 **Reported** February 5, 2018

Report ID 4962440

Previous Report IDs

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on January 23, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Page 1 of 2 Report ID: 4962440



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213

Fax: (608) 224-6213 Web: www.wohl-lab.org

Final Report

Lab ID: 363825001 Sample ID: 1P-CP-1 Media: OVS-7 TUBE
Sampling Date: 1/18/2018 Matrix: Air Sampled Time:

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	2/2/2018	98.0 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	
Lab ID: 363825002 Sampling Date: 1/18/2018			Sample I Matrix: A		P-1			Media: OVS-7 TUBE Sampled Time:	

								RESULT —	
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	2/2/2018	98.0 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter ug = micrograms ppb or ppbv = parts per billion /ft2 = per square foot

ng = nanograms EU = Endotoxin Units fibers/cc = fibers per cubic centimeter

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

This report is not to be reproduced except in its entirety



EMSL Analytical - Industrial Hygiene

200 Route 130 North, Cinnaminson, NJ 08077

(800) 220-3675 / Phone/Fax:

http://www.EMSL.com

IndustrialHygienelab@emsl.com

EMSL Order: 281800872 CustomerID: SREC85 CustomerPO: 018013

ProjectID:

Alex Green S&R Environmental Consulting, Inc. 5801 Logan Street, #200 **Denver, CO 80216**

Phone: (303) 297-1645 Fax: (303) 297-1646 Received: 02/26/18 8:00 AM Analysis Date: 2/27/2018

1/15/2018

Project: EPA Lobby

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	Location	Volume (L)	Initial Weight (mg)	Final Weight (mg)	Sample Weight (mg)	Concentration (µg/m³)	Reporting Limit (μg/m³)	Notes
011518SR-08	EPA Lobby	2409	56.409	56.619	0.21	87	0.83	
281800872-0001								

Collected:

Discernable field blank not submitted with samples. Notes:

Results are not field blank corrected.

Analyst(s) Vincent Kurp (1)

Scott Van Etten, CIH, Laboratory Manager or other approved signatory

1

The laboratory is not responsible for data reported in mg/m3, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. This report may not be reproduced, except in full, without written approval by EMSL. Samples received in good condition unless otherwise noted. Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ

Initial report from 02/27/2018 11:52:45



EMSL Analytical - Industrial Hygiene

200 Route 130 North, Cinnaminson, NJ 08077

(800) 220-3675 / Phone/Fax:

http://www.EMSL.com IndustrialHygienelab@emsl.com EMSL Order: 281800790 CustomerID:

CustomerPO:

ProjectID:

SREC85

Phone: **Alex Green** Fax: S&R Environmental Consulting, Inc. Received: 5801 Logan Street, #200

02/20/18 10:40 AM 2/21/2018

(303) 297-1645

(303) 297-1646

Analysis Date: Collected: 2/16/2018

Project: EPA PM10-21618

Denver, CO 80216

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	Location	Volume (L)	Initial Weight (mg)	Final Weight (mg)	Sample Weight (mg)	Concentration (µg/m³)	Reporting Limit (μg/m³)	Notes
011518SR-10	4th Floor SW Corner	2392	52.978	53.220	0.24	100	0.84	
281800790-0001								

Discernable field blank not submitted with samples. Notes:

Results are not field blank corrected.

Analyst(s) Vincent Kurp (1)

Scott Van Etten, CIH, Laboratory Manager or other approved signatory

The laboratory is not responsible for data reported in mg/m3, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. This report may not be reproduced, except in full, without written approval by EMSL. Samples received in good condition unless otherwise noted. Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ

Initial report from 02/21/2018 14:14:39



EMSL Analytical - Industrial Hygiene

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

 EMSL Order:
 281801007

 CustomerID:
 SREC85

 CustomerPO:
 018013

ProjectID:

Alex Green
 S&R Environmental Consulting, Inc.
 5801 Logan Street, #200
 Denver, CO 80216

Phone: (303) 297-1645
Fax: (303) 297-1646
Received: 03/05/18 9:05 AM
Analysis Date: 3/9/2018

Collected: 3/1/2018

Project: EPA 2/28 & 3/1 Tests

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	Location	Volume (L)	Initial Weight (mg)	Final Weight (mg)	Sample Weight (mg)	Concentration (µg/m³)	Reporting Limit (µg/m³)	Notes
PM10-05	5th Floor	2436	55.274	55.348	0.074	30	0.82	
281801007-0001								
PM10-06	6th Floor	2516	51.404	51.538	0.13	52	0.79	
281801007-0002								
PM10-07	7th Floor	2494	58.230	59.435	1.2	480	0.80	
281801007-0003								
PM10-02	2nd Floor	2579	55.315	55.725	0.41	160	0.78	
281801007-0004								

Notes: Discernable field blank not submitted with samples.

Results are not field blank corrected.

Analyst(s)
Vincent Kurp (4)

Scott Van Etten, CIH, Laboratory Manager or other approved signatory

1

The laboratory is not responsible for data reported in mg/m3, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. This report may not be reproduced, except in full, without written approval by EMSL. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ

Initial report from 03/09/2018 11:50:25

2

EMBL ANALYTICAL, INC.

Industrial Hygiene Chain of Custody EMSL Order Number (Lab Use Only): -281801007

200 Route 130 North EMSL Analytical, Inc.

Cinnaminson, NJ 08077
PHONE: 1-800-220-3675
FAX: (856) 786-5074

			1.				L			FAX:	(856) /86-59/4
Report To Conta	Report To Contact Name: Alexander Green	en			BIII To	Bill To Company:	S&R	Environmental Co	0	Client ID #:	a d
Company Name:	S&R Environmental Co				Attent	Attention To: Alexander Green	lexander G	reen		! !	
Street: 5801 Logan St.	gan St.				Street	Street: 5801 Logan St.	gan St.				
city: Denver	State/Province: CO		Zip/Postal Code: 80212	80212	City: [[]	City: Denver		State/Province:	nce: CO	Zip/Pos	Zip/Postal Code: 80212
Phone: 3035481175		B1175			Phon	Phone: 3035481175	175		Fax: 3032971645	1645	
Project Name: I	Project Name: EPA 2/28 & 3/1 Tests			Email Re	sults To: ⁹¹	Email Results To: greenalexd@gmail.com	gmail.com		U.S. State wh	ere Sample	U.S. State where Samples Collected: CO
#Samples In Shipment:		Date of Shipment: $3/2//8$		Purchase	Purchase Order: 018013	8013	Sampled	led By (Signature):	The		
Turnaround	Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply	heck: If No Se	lection Mad	e, Standa	ard 2 Wee	K TAT WIII	Apply	Media Type:	9:		
X2 Week	1 Week 4 Day	☐3 Day	□2 Дау		1 Day	Other (Call Lab)	l Lab)	Manufacturer/Part #:	rer/Part #:		Lot #:
Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On Off	e Time Off	Volume / Area	Sample Type	Sample Date		Comme tts
PCH-05	5th Plane	OSHA-CS I	Sarbat Tibe				27.6	Area Personal	2/28/18		W SU S
PCH . 06	64 Floor		-	-	•		26 . 4	Area	:-		
PCH-07	7th Floor		·				26.8	Area Personal	3/1/18		01 H 1
PcH- 02	2 th Floor	4	\				27.0	Area Personal	1	٠ -	LS:
50-01W	S4 Ploor	EPAIP-lo A	PTFE		•		2,436	Area Personal	2/28/18	011518SR	85R - 04
PM/0 - 06	6th Floor	1					2,516	Area Personal	\ \ \		0 9
PM10-07	7+6 Ploof			· · · · . =			2,494	Area Personal	3/1/18		90-
PM10 - 02	2 of Place	1	+				2,579	Area Personal	·\$ ·	~	- 05
Note: Most NIOS	Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the pro-	ire field blanks.	It is the IH fiel	d sampler	's responsit	ility to submi	Iặ	per number of field blanks and duplicates.	d blanks and c	duplicates.	
Released By	Released By Control of the Control o	学后李达 是一个一个一个	ATHERN STREET,	Date	SAN MAKES	elvediby	電の放射が		+	 -	Date

Controlled Occument - Industrial Hygiene CDC - R4 - 9/8/2015

Comments: Call with Questions Alex Green 303-548-1175

Page ဌ 2 pages

798435930414

Controlled Decument - Industrial Hygrene COC - R4 - 8/8/2015

Industrial Hygiene

Chain of Custody
EMSL Order Number (Lab Use Only):

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 858-3502

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

ì	-Comments:-ca	1										POK-02	6P-07	70-79	10K-05	Sample ID
	-Comments:-Call-with Questions-Alex Green 303-548-1175-											and Floor	7 24 Floor	6th Floor	5+6 Ploor	Location/Description
	75		i t									4			NIO2H2016	Analyte / Method
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		☐ Area ☐ Personal	☐ Area ☐ Personal	☐ Area ☐ Personal	Area Personal	☐ Area ☐ Personal	Area Personal	Area Personal	Area Personal	Area Personal	Sample Type					
,		1				•						``	3/1/18	//	2/28/18	Sample Date
					4247	(S :(2)			7 Д АМ			•			*	Comments



EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281801031

Attn: Alexander Green Customer ID: SREV26 S&R Environmental Customer PO: 018013

421 Oakwood Dr. Date Received: 03/05/2018

Troy, IL 62294

Phone: (303) 297-1645 EMSL Order: 281801031

Project: EPA 2/28 & 3/1 Tests EMSL Project ID:

Report Date: 03/14/2018 Date Analyzed: 03/12/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume	Sample Weight	Sample Conc.	Reporting Limit
		(L)	(μg)	(μg/m ³)	$(\mu g/m^3)$
281801031-0001	PCH-05 / 5th Floor	27.6	< 0.030	<1.1	<1.1
281801031-0002	PCH-06 / 6th Floor	26.4	< 0.030	<1.1	<1.1
281801031-0003	PCH-07 / 7th Floor	27	< 0.030	<1.1	<1.1
281801031-0004	PCH-02 / 2nd Floor	27	< 0.030	<1.1	<1.1
Desorption Blank	-	0	< 0.030	ND	NA

Notes:

- 1. Samples were received in acceptable condition unless otherwise noted.
- 2. These results relate only to the samples tested.
- 3. Sample results are not blank corrected unless otherwise noted.
- 4. Discernable field blank(s) submitted with samples if reported above.

TC/AS/VK/VMD

Analyst

Scott VanEtten, CIH- Lab Manager
Or other approved signatory



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID: Customer ID: Customer PO:

281801032 SREC85 018013

Project ID:

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200

Denver, CO 80216

Fax:

(303) 297-1645 (303) 297-1646

Collected:

Phone:

Received: 3/05/2018 Analyzed: 3/06/2018

Proj: EPA 2/28 & 3/1 Tests

Test Report: Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Co	ncentration	Reporting Limit
FOR-05 281801032-0001	5th Floor	27.3 L	0.14 μg	0.0051 mg/m³	0.0042 ppm	0.0018 mg/m³
FOR-06 281801032-0002	6th Floor	26.6 L	0.13 μg	0.0049 mg/m³	0.0040 ppm	0.0019 mg/m³
FOR-07 281801032-0003	7th Floor	26 L	0.11 μg	0.0042 mg/m³	0.0034 ppm	0.0019 mg/m³
FOR-02 281801032-0004	2nd Floor	27.5 L	0.10 µg	0.0036 mg/m³	0.0030 ppm	0.0018 mg/m³

ı	N/A	=	Not	Ann	licat	ıle

Analyst(s)

Alicia Shafer

SWVayEll

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 03/19/2018 13:23:15

- 1. Samples were received in acceptable condition unless otherwise noted.
- These results relate only to the samples tested.
 Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
- 4. A discernable Field Blank was submitted if listed above as a discrete sample

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

OrderID: 281801032

Comments: Call with Questions Alex Green 303-548-1175

Controlled Document - Industrial Hygiene COC - R4 - 9/8/2015

Page.

of

pages

798435930414

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

200 Route 130 North Cinnaminson, NJ 08077

EMSL Analytical, Inc.

	#Samples in Shipment: Date of Shipment: 3/2//8 Purchase Order: 018013 Sampled By (Signature); The samples of Shipment:	Project Name: EPA 2/28 & 3/1 Tests Email Results To: greenalexd@gmail.com U.S. State where Samples Collected: CO	Phone: 3035481175 Fax: 3035481175 Phone: 3035481175 Fax: 3032971645	City: Denver State/Province: CO Zip/Postal Code: 80212 City: Denver State/Province: CO Zip/Postal Code: 80212	Street: 5801 Logan St. Street: 5801 Logan St.	Company Name: S&R Environmental Co Attention To: Alexander Green	Report To Contact Name: Alexander Green Bill To Company: S&R Environmental Co Client ID #:	EMSL ANALYTICAL, INC. ANALYTICAL, INC. Serial Analytical, INC. ANALYTICAL, INC. Serial Code Nulliber (Feb 38 011) FAX: (856) 786-5974
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Date			程の対抗に	Received By	Date			Control of the traction of the second of	Released By
	eld blanks and dupl	number of fi	nit the proper	ponsibility to subn	sampler's res	It is the IH field	iire field blanks.	Note: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.	Note: Most NIO
- 05	1	Area Personal	2,579			*	~	2 of Mour	PM10 - 02
90-	3/1/18	Area 3///	2,494		1,-			7+6 Moor	PM10-07
0 9	1	Area Personal	2,516					6+4 Floor	30 0/W
Personal 2/28/18 0115185R - 04	2/28/18 0	Area Personal	2,436			27 mm	EPAIR-10 A	St Place	50-01W
LS:	1	Area Personal	27.0				4	2 th Ploor	PCH- 02
СО ОИ ' И	Area Personal 3///18	Area Personal	26.8					7th Floor	PCH-07
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ЭЯ Э Аин Я ан	Area 2/28//8	Area Personal	27.6			Sorbet tibe	OSHA-CS 1	544 Floor	PCH-05
Comme	Sample Date	Sample Type	Volume / Area	Sample Time On Off	Flow S (lpm) C	Media	Analyte / Method	Location/Description	Client Sample ID
Lot #:	Manufacturer/Part #:	Manufact	ıll Lab)	☐4 Day ☐3 Day ☐2 Day ☐1 Day ☐Other (Call Lab)	☐1 Day	2 Day	П 3 Day	☐1 Week ☐4 Day	2 Week

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

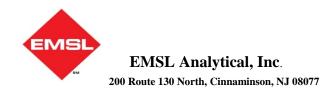
EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 858-3502

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

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*	١	Comments: Cal					Ti de la companya de						FOR-02	6R-07	FOR-06	10-R-05	Client Sample ID
		Comments: Call with Questions Alex Green 303-548-1175						,					and Floor	74 7001		54 Ploor	Location/Description
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								7 03/	WIN EWS CFL	H	11.17						

Controlled Document -- Industrial Hygiene CDC -- R4 -- 9/8/2015

Page
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page



EMSL Order ID: 491800190

Attn: Alex Green Customer ID: SREC85

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Date Received: 3/5/2018

Denver, CO 80216

Project: EPA 1595 Wynkoop St.

Report Date: 3/11/2018 Data Analyzed: 3/11/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800190-1	0270- 2 Fl.	Carbon Monoxide	6.3	<6.3
491800190-2	0392- 5 Fl.	Carbon Monoxide	6.1	<6.1
491800190-3	0415 - 6 Fl.	Carbon Monoxide	7.0	<7.0
491800190-4	15341 - 7FI.	Carbon Monoxide	6.1	<6.1
491800190-1	0270- 2 Fl.	Carbon Dioxide	250	590
491800190-2	0392- 5 Fl.	Carbon Dioxide	240	620
491800190-3	0415 - 6 Fl.	Carbon Dioxide	280	580
491800190-4	15341 - 7FI.	Carbon Dioxide	240	630

RRenna	Marge Howley
Analyst	Lab Manager



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 Customer ID: SREC85 Customer PO: 18013

Phone: 303-297-1645 Attn: Alex Green S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Fax: 303-297-1646

Date Collected: 3/1/2018 Project: EPA 1595 Wynkoop St. Date Received: 3/5/2018

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800190-0001	0270-2 FI.	3/1/2018	10:15 AM
491800190-0002	0392 - 5 Fl.	2/28/2018	10:50 AM
491800190-0003	0415 - 6 Fl.	2/28/2018	10:45 AM
491800190-0004	15341 - 7 Fl.	3/1/2018	10:10 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date: Report Revision **Revision Comments** 3/19/2018 R0 Initial Report

> Marjorie Howley, Laboratory Manager or other approved signatory

Majour Howley

Test results meet all NELAP requirements unless otherwise specified. NJDEP Certification #: 03036



<u>Analysis</u>

Initial

EMSL Analytical

200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

 $\mathbf{K}\mathbf{W}$

EMSL Order #: 491800190 491800190-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Analysis Date

03/14/2018

Phone: 303-297-1645

3/5/2018

303-297-1646 Fax: Date Collected: 3/1/2018

Sample ID: 0270-2 Fl.

Date Received:

Project: EPA 1595 Wynkoop St.

Analyst Init. Lab File ID **Canister ID** Sample Vol. Dil. Factor E0270 312.5 cc K15169.D

Target Compound Results Summary

	· · · · ·		Result	RL	1	Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.70	0.50		1.4	1.0	
n-Butane	106-97-8	58.12	5.8	0.50		14	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	47	0.50	Е	88	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.8	0.50		12	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	7.4	0.50		18	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	17	0.50		28	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.58	0.50		1.7	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	0.80	0.50		2.9	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	2.2	0.50		7.5	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	



Analysis

Initial

EMSL Analytical

200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190
EMSL Sample #: 491800190-1
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Fax: 303-297-1
Date Collected: 3/1/2018
Date Received: 3/5/2018

Sample ID: 0270-2 Fl.

Project: EPA 1595 Wynkoop St.

 Analysis Date
 Analyst Init.
 Lab File ID
 Canister ID
 Sample Vol.
 Dil. Factor

 03/14/2018
 KW
 K15169.D
 E0270
 312.5 cc
 1

Target Compound Results Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.1	0.50		4.0	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concent	rations:		87	ppbv		180	ug/m3	

 Surrogate
 Result
 Spike
 Recovery

 4-Bromofluorobenzene
 11
 10
 110%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 EMSL Sample #: 491800190-1 Customer ID: SREC85 Customer PO: 18013

Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: **303-297-1645** Fax: 303-297-1646

Date Collected: 3/1/2018 Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0270-2 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor	
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1	

Tentatively Identified Compound Results Summary

	rentatively id	enunea		u ivesui			
			Result		Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments
Propane	000074-98-6	44	3.6	JN	6.5	5.51	
Isobutane	000075-28-5	58	1.2	JN	2.8	6.00	
Butane, 2-methyl-	000078-78-4	72	2.1	JN	6.2	8.09	
Pentane	000109-66-0	72	1.7	JN	5.1	9.02	
D-Limonene	005989-27-5	136	1.4	JN	7.6	29.10	
	Total TIC Conce	entrations:	10	vdqq	28	ug/m3	

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 491800190-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Alex Green

Phone: 303-297-1645 S&R Environmental Consulting, Inc. 303-297-1646 Fax: 5801 Logan Street, #200 Date Collected: 3/1/2018 Denver, CO 80216 3/5/2018 Date Received:

Project: EPA 1595 Wynkoop St.

Sample ID: 0270-2 Fl.

<u>Analysis</u>	<u>Analysis Date</u>	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Chloromethane	74-87-3	50.49	0.70	0.50		1.4	1.0	
n-Butane	106-97-8	58.12	5.8	0.50		14	1.2	
Ethanol	64-17-5	46.07	47	0.50	Е	88	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.8	0.50		12	1.2	
Acetone	67-64-1	58.08	7.4	0.50		18	1.2	
Acetonitrile	75-05-8	41.00	17	0.50		28	0.84	
2-Butanone(MEK)	78-93-3	72.10	0.58	0.50		1.7	1.5	
Ethyl acetate	141-78-6	88.10	0.80	0.50		2.9	1.8	
Cyclohexane	110-82-7	84.16	2.2	0.50		7.5	1.7	
Toluene	108-88-3	92.14	1.1	0.50		4.0	1.9	
Total Target Co	ompound Conce	entrations:	87	ppbv		180	ug/m3	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

			Result			Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv		Q	ug/m3	Time	Comments
Propane	000074-98-6	44	3.6		JN	6.5	5.51	
Isobutane	000075-28-5	58	1.2		JN	2.8	6	
Butane, 2-methyl-	000078-78-4	72	2.1		JN	6.2	8.09	
Pentane	000109-66-0	72	1.7		JN	5.1	9.02	
D-Limonene	005989-27-5	136	1.4		JN	7.6	29.1	
•	Total TIC Conce	ntrations:	10	ppbv		28	ug/m3	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs): 100 ppbv 210 ug/m3



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com EMSL Order #: 491800190
EMSL Sample #: 491800190-2
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0392 - 5 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Target Compound Results Summary

Target Compounds	CAS#	MW	Result ppbv	RL ppbv	Q	Result ug/m3	RL ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.92	0.50		1.9	1.0	
n-Butane	106-97-8	58.12	6.5	0.50		15	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	35	0.50		66	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	3.2	0.50		7.7	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	12	0.50		29	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	27	0.50		46	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	1.1	0.50		4.1	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 491800190-2 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: 303-297-1645 Fax: 303-297-1646

3/1/2018 Date Collected: 3/5/2018 Date Received:

Project: EPA 1595 Wynkoop St.

Sample ID: 0392 - 5 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Target Compound Results Summary

			Result	RL	_	Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	0.69	0.50		2.6	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			86	ppbv		170	ug/m3	

Result **Spike** Surrogate Recovery 11 10 110% 4-Bromofluorobenzene

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190

EMSL Sample #: 491800190-2

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0392 - 5 FI.

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Tentatively Identified Compound Results Summary

	Tentatively id	J					
			Result		Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments
Propane	000074-98-6	44	5.1	JN	9.1	5.51	
sobutane	000075-28-5	58	2.2	JN	5.2	6.00	
Butane, 2-methyl-	000078-78-4	72	1.1	JN	3.1	8.08	
D-Limonene	005989-27-5	136	1.6	JN	8.6	29.10	
	Total TIC Conce	entrations:	10	ppbv	26	ug/m3	

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190
EMSL Sample #: 491800190-2
Customer ID: SREC85
Customer PO: 18013

Phone:

Attn: Alex Green

 S&R Environmental Consulting, Inc.
 Fax:
 303-297-1646

 5801 Logan Street, #200
 Date Collected:
 3/1/2018

 Denver, CO 80216
 Date Received:
 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample Vol. Dil. Factor

Sample ID: 0392 - 5 Fl.

303-297-1645

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Total Volatile Organic Compounds (TVOC) Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Chloromethane	74-87-3	50.49	0.92	0.50		1.9	1.0	
n-Butane	106-97-8	58.12	6.5	0.50		15	1.2	
Ethanol	64-17-5	46.07	35	0.50		66	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	3.2	0.50		7.7	1.2	
Acetone	67-64-1	58.08	12	0.50		29	1.2	
Acetonitrile	75-05-8	41.00	27	0.50		46	0.84	
Ethyl acetate	141-78-6	88.10	1.1	0.50		4.1	1.8	
Toluene	108-88-3	92.14	0.69	0.50		2.6	1.9	
Total Target Co	mpound Conce	entrations:	86	ppbv		170	ug/m3	

Qualifier Definitions

- B = Compound also found in method blank.
- $\hbox{$E$=$ Estimated concentration exceeding upper calibration range.}$
- $D \hbox{= Result reported from diluted analysis}.$

			Result			Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv		q	ug/m3	Time	Comments
Propane	000074-98-6	44	5.1		JN	9.1	5.51	
Isobutane	000075-28-5	58	2.2		JN	5.2	6	
Butane, 2-methyl-	000078-78-4	72	1.1		JN	3.1	8.08	
D-Limonene	005989-27-5	136	1.6		JN	8.6	29.1	
	Total TIC Conce	ntrations:	10	ppbv		26	ug/m3	

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compour	nds (TVOCs):	100	vdaa	200 ug/m3



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 491800190-3 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: 303-297-1645 Fax: 303-297-1646

Date Collected: 3/1/2018 Date Received: 3/5/2018

Sample ID: 0415 - 6 Fl. Project: EPA 1595 Wynkoop St.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

Target Compound Results Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0	
n-Butane	106-97-8	58.12	6.9	0.50		16	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	37	0.50		69	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.8	0.50		12	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	13	0.50		30	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	16	0.50		27	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	1.1	0.50		4.0	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190
EMSL Sample #: 491800190-3
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Project: EPA 1595 Wynkoop St.

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Sample ID: 0415 - 6 FI.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

Target Compound Results Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	0.74	0.50		2.8	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concent	rations:		80	ppbv		160	ug/m3	

 Surrogate
 Result
 Spike
 Recovery

 4-Bromofluorobenzene
 11
 10
 110%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190

EMSL Sample #: 491800190-3

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc. 5801 Logan Street, #200

5801 Logan Street, #2 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0415 - 6 FI.

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

Tentatively Identified Compound Results Summary

Tentatively identified Compound Results Summary											
L			Result		Result	Retention					
Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments				
Propane	000074-98-6	44	5.0	JN	9.0	5.51					
Isobutane	000075-28-5	58	2.1	JN	5.1	6.00					
D-Limonene	005989-27-5	136	1.5	JN	8.3	29.09					
L	Total TIC Conce	ntrations:	8.6	ppbv	22	ug/m3					

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



<u>Analysis</u>

Initial

EMSL Analytical

200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 491800190-3 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Phone:

Sample ID: 0415 - 6 Fl.

Alex Green

303-297-1645 S&R Environmental Consulting, Inc. Fax: 303-297-1646 5801 Logan Street, #200 Date Collected: 3/1/2018 **Denver, CO 80216** Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Analysis Date

03/14/2018

Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
KW	K15171.D	E0415	312.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
n-Butane	106-97-8	58.12	6.9	0.50		16	1.2	
Ethanol	64-17-5	46.07	37	0.50		69	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.8	0.50		12	1.2	
Acetone	67-64-1	58.08	13	0.50		30	1.2	
Acetonitrile	75-05-8	41.00	16	0.50		27	0.84	
Ethyl acetate	141-78-6	88.10	1.1	0.50		4.0	1.8	
Toluene	108-88-3	92.14	0.74	0.50		2.8	1.9	
Total Target (80	ppbv		160	ug/m3			

Qualifier Definitions

- B = Compound also found in method blank.
- E= Estimated concentration exceeding upper calibration range.
- D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	5.0		JN	9.0	5.51	
Isobutane	000075-28-5	58	2.1		JN	5.1	6	
D-Limonene	005989-27-5	136	1.5		JN	8.3	29.09	
	Total TIC Conce	8.6	vdaa		22	ua/m3		

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (7	TVOCs):	89	vdqq	180 ug/m3	



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 491800190-4 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: 303-297-1645 Fax: 303-297-1646

Date Collected: 3/1/2018 Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 15341 - 7 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Target Compound Results Summary

	Result RL Result RL											
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments				
Propylene	115-07-1	42.08	ND	1.0		ND	1.7					
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5					
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5					
Chloromethane	74-87-3	50.49	0.82	0.50		1.7	1.0					
n-Butane	106-97-8	58.12	5.8	0.50		14	1.2					
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3					
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1					
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9					
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3					
Ethanol	64-17-5	46.07	34	0.50		65	0.94					
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2					
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8					
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.0	0.50		10	1.2					
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8					
Acetone	67-64-1	58.08	7.3	0.50		17	1.2					
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0					
Acetonitrile	75-05-8	41.00	2.5	0.50		4.2	0.84					
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5					
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2					
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6					
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6					
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7					
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1					
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8					
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0					
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8					
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0					
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8					
2-Butanone(MEK)	78-93-3	72.10	0.62	0.50		1.8	1.5					
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0					
Ethyl acetate	141-78-6	88.10	1.1	0.50		4.0	1.8					
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4					
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5					
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7					
Cyclohexane	110-82-7	84.16	0.66	0.50		2.3	1.7					
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3					
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1					
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0					
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0					
Benzene	71-43-2	78.11	ND	0.50		ND	1.6					
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7					
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3					
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0					
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3					
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8					
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0					



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 491800190-4 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: 303-297-1645 Fax: 303-297-1646

Date Collected: 3/1/2018 Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 15341 - 7 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Target Compound Results Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.2	0.50		4.5	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concent	rations:		58	ppbv		120	ug/m3	

Result Spike Recovery Surrogate 4-Bromofluorobenzene 11 10 110%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190

EMSL Sample #: 491800190-4

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 15341 - 7 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Tentatively Identified Compound Results Summary

rentatively identified Compound Results Summary												
			Result		Result	Retention						
Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments					
Propane	000074-98-6	44	3.6	JN	6.5	5.51						
sobutane	000075-28-5	58	1.5	JN	3.6	6.00						
Butane, 2-methyl-	000078-78-4	72	1.9	JN	5.7	8.10						
Pentane	000109-66-0	72	1.5	JN	4.5	9.03						
D-Limonene	005989-27-5	136	3.3	JN	18	29.10						
	Total TIC Conce	L	12	vdqq	38	ug/m3						

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 491800190-4 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Alex Green

Phone: 303-297-1645 S&R Environmental Consulting, Inc. Fax: 303-297-1646 5801 Logan Street, #200 Date Collected: 3/1/2018 **Denver, CO 80216** 3/5/2018 Date Received:

Project: EPA 1595 Wynkoop St.

Sample ID: 15341 - 7 Fl. Sample Vol

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Total Volatile Organic Compounds (TVOC) Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
n-Butane	106-97-8	58.12	5.8	0.50		14	1.2	
Ethanol	64-17-5	46.07	34	0.50		65	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.0	0.50		10	1.2	
Acetone	67-64-1	58.08	7.3	0.50		17	1.2	
Acetonitrile	75-05-8	41.00	2.5	0.50		4.2	0.84	
Ethyl acetate	141-78-6	88.10	1.1	0.50		4.0	1.8	
Toluene	108-88-3	92.14	1.2	0.50		4.5	1.9	
Total Target Co	58	ppbv		120	ug/m3			

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

			Result			Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv		ø	ug/m3	Time	Comments
Propane	000074-98-6	44	3.6		JN	6.5	5.51	
Isobutane	000075-28-5	58	1.5		JN	3.6	6	
Butane, 2-methyl-	000078-78-4	72	1.9		JN	5.7	8.1	
	Total TIC Conce	entrations:	12	vdqq	•	38	ug/m3	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs): ppbv ug/m3

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USEPA TO-15

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Controlled Document - COC-50 TO-15 Circuminaton R7.1 2017.07.26

491800190

TO-FM-12 Sample Information
Revision 9
Effective Date: January 22, 2018
EMSL
CINITA MIRSON, N.J.

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to be the lyange our samples, achieve requested TAT, and provide you with helpful interpretation information.

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Company: STR En	VITORME	atal (Consultin
Contact Person:			7
Name: Mex Gre	en		
E-mail: 9/ex@-	scenvii	ornert	alconsulting. com
Additional E-mails:	/		/ ~
Telephone #: 303 - 29	7 - 164	15	
		il identify up to	NO 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 cion, the library search is recommended to provide you with all available information for
Indoor Air Quality (Home/Office) [] IAQ (Industrial) [] Other: Sample Description:			[] Soil Gas/Sub Slab
			our results have exceeded any Exposure Limit criteria established by any regulatory n regulatory comparison forms you would like to receive.
OSHA PELS/NIOSH RELS	combined form		Potential Sources of Compounds found in your IAQ sample
[] EPA RSLs - 11/2017	Residential	Industrial	TVOC (Library Search Required for this format)
[] NJ DEP 1/2018 - Circle one:	VI-indoor AQ	VI-Soil Gas	[] Ohio 4/2013 -Circle one: Residential Commercial
[] NC DENR 4/2014 - Circle one:	Residential	Non-residentia	l [] Indiana Dept Env Mgmt Screeening Levels 3/2016
[] PA DEP - 11/2016	Indoor Air		[] Vermont DEP IROCP 4/2012 (soil gas only)
[] PA DEP- 11/2016: Sub Slab Soil Gas	OR Near Source S	oil Gas	[] California OEHHA 2/2012
[] CA HHSL 11/2004 -Circle one:	Indoor Air	Soil Gas	[] Other; these are the compounds I want reported:
Please note: There is an additional charge Cinnaminson NJ Laboratory.	for any of the te	sts below. USEP	PA TO-3 AND ASTM 5504 analyses can be performed from your canister at the
US EPA TO-3 via GC/FID (choose one	below):	A	STM-D5504 via GC/SCD (choose one below): "
[] C ₁ -C _s hydrocarbons [] Methane only		_] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS)] H ₂ S only
*Note: Hold time for sulfur gases is on Friday. Analysis performed out of hold			chedule your sample collection so samples are received in the lab prior to noon ne report.
	commends alter	nate field sampl	ninson and Huntington Beach laboratories. Please note these tests are to be used for ling techniques for these parameters (with the exception of water vapor); please contact large for any of the tests below.
Draeger CMS Analyzer: CO CO ₂ []NH ₃	[]02 []	Water Vapor	
	ns may be retair	•	one day after results are reported. Please review your results promptly to ensure period of time, but arrangements to hold your cans must be made through your



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190
EMSL Sample #: 491800190-1
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0270-2 FI.

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH REL		OSHA PEL	
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan		76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	0.70		1.4	LFC		210000	<u> </u>
n-Butane		106-97-8	58.12	5.8		14	1900000		1900000	
Vinyl chloride	С	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	С	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol		64-17-5	46.07	47	Е	88	1900000		1900000	
Bromoethene(Vinyl bromide)	С	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)		75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	4.8		12	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	7.4		18	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	17		28	34000		67000	
Tertiary butyl alcohol(TBA)		75-65-0	74.12	ND		ND	300000		300000	
Bromoethane(Ethyl bromide)		74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	С	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	С	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	С	107-13-1	53.00	ND		ND	2200		4300	†
Methyl-tert-butyl ether(MTBE)	С	1634-04-4	88.15	ND		ND	N.E.		N.E.	1
trans-1,2-Dichloroethene		156-60-5	96.94	ND		ND	790000		790000	1
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	†
1,1-Dichloroethane	С	75-34-3	98.96	ND		ND	400000		400000	1
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000		N.E.	1
2-Butanone(MEK)	NC	78-93-3	72.10	0.58		1.7	590000		590000	†
cis-1,2-Dichloroethene		156-59-2	96.94	ND		ND	790000		790000	t
Ethyl acetate	NC	141-78-6	88.10	0.80		2.9	1400000		1400000	\vdash
Chloroform	С	67-66-3	119.40	ND		ND	9800		240000	+
Tetrahydrofuran	NC NC	109-99-9	72.11	ND		ND	590000		590000	+
1,1,1-Trichloroethane	NC NC	71-55-6	133.40	ND		ND	1900000		1900000	+
Cyclohexane	NC NC	110-82-7	84.16	2.2		7.5	1000000		1000000	+-
2,2,4-Trimethylpentane(Isooctane)		540-84-1	114.20	ND		ND	N.E.		N.E.	+
Carbon tetrachloride	С	56-23-5	153.80	ND	1	ND ND	13000		63000	+
	NC NC	142-82-5	100.20	ND ND		ND ND	350000	H	2000000	+-
n-Heptane					1			\vdash	2000000	+
1,2-Dichloroethane	С	107-06-2	98.96	ND ND		ND	4000	\vdash		╁
Benzene	С	71-43-2	78.11	ND ND	1	ND	320	\vdash	3200	+-
Trichloroethene	С	79-01-6	131.40	ND	1	ND	130000	\vdash	540000	₩
1,2-Dichloropropane	C	78-87-5	113.00	ND		ND	LFC	\vdash	350000	1
Methyl Methacrylate	NC	80-62-6	100.12	ND	1	ND	410000	Н	410000	₩
Bromodichloromethane	С	75-27-4	163.80	ND		ND	N.E.		N.E.	丄



Attn:

EMSL Analytical

200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

S&R Environmental Consulting, Inc.

EMSL Order #: 491800190 491800190-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

303-297-1645

Fax: 303-297-1646 Date Collected: 3/1/2018

Phone:

Date Received: 3/5/2018

Sample ID: 0270-2 Fl.

5801 Logan Street, #200 Denver, CO 80216

Alex Green

Project: EPA 1595 Wynkoop St.

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH REL		OSHA PEL
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3
1,4-Dioxane	С	123-91-1	88.12	ND		ND	3600		360000
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000
cis-1,3-Dichloropropene**	С	10061-01-5	111.00	ND		ND	4500		N.E.
Toluene	NC	108-88-3	92.14	1.1		4.0	380000		750000
trans-1,3-Dichloropropene**	С	10061-02-6	111.00	ND		ND	4500		N.E.
1,1,2-Trichloroethane	С	79-00-5	133.40	ND		ND	55000		55000
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000
Tetrachloroethene	С	127-18-4	165.80	ND		ND	LFC		680000
Dibromochloromethane		124-48-1	208.30	ND		ND	N.E.		N.E.
1,2-Dibromoethane	С	106-93-4	187.80	ND		ND	350		150000
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000
Ethylbenzene	С	100-41-4	106.20	ND		ND	430000		430000
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000
Bromoform	С	75-25-2	252.80	ND		ND	5200		5200
1,1,2,2-Tetrachloroethane	С	79-34-5	167.90	ND		ND	6900		34000
4-Ethyltoluene		622-96-8	120.20	ND		ND	N.E.		N.E.
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000
2-Chlorotoluene		95-49-8	126.60	ND		ND	260000		N.E.
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000
1,3-Dichlorobenzene		541-73-1	147.00	ND		ND	N.E.		N.E.
1,4-Dichlorobenzene	С	106-46-7	147.00	ND		ND	LFC		450000
Benzyl chloride	С	100-44-7	126.00	ND		ND	5200		5200
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.
Hexachloro-1,3-butadiene	С	87-68-3	260.80	ND		ND	210		N.E.
Naphthalene	С	91-20-3	128.17	ND		ND	52000		52000

^{**}The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

Exposure Limit Definitions

REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions

NIOSH= The National Institute for Occupational Safety and Health

Reference

Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)

Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)

C= Carcinogenic

NC= Non-Carcinogenic

Compound Exposure Definitions

NE= No Limit Established

LFC= Lowest Feasible Concentration

NS= No Sscreening Value

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190

EMSL Sample #: 491800190-1

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc. 5801 Logan Street. #200

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0270-2 FI.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

Possible Background Sources of Contaminants

Possible Background Sources of Contaminants							
		Result		Result			
Target Compounds	CAS#	ppbv	Q	ug/m3	Use and Possible Sources		
					Most (99%) of the chloromethane in the environment		
					comes from natural sources. Because chloromethane is		
					made in the oceans by natural processes, it is present in air		
					all over the world. In most areas, the outside air contains		
					less than 1 part of chloromethane in a billion parts of air (ppb). In cities, human activities, mostly combustion and		
					manufacturing, add to the chloromethane in the air,		
					resulting in somewhat higher levels, up to 1 ppb. Cigarette		
					smoke, polystyrene insulation, and aerosol propellants;		
					home burning of wood, coal, or certain plastics; and		
Chloromethane	74-87-3	0.70		1.4	chlorinated swimming pools.4		
					Aerosol spray products for some paints, cosmetics,		
n-Butane	106-97-8	5.8		14	automotive products, leather treatments, pesticides. ²		
					Hand sanitizers, disinfecting wipes. Personal care products: nail polish, nail polish remover, colognes, perfumes,		
Ethorizat	04.47.5	47	_	00	rubbing alcohol, hair spray. ²		
Ethanol	64-17-5	47	Е	88	Eye Glass Cleaners. Disinfecting wipes. Personal care		
					products: nail polish, nail polish remover, colognes,		
Isopropyl alcohol(2-Propanol)	67-63-0	4.8		12	perfumes, rubbing alcohol, hair spray. ²		
		- 110			Rubber cement, cleaning fluids, scented candles and nail		
Acetone	67-64-1	7.4		18	polish remover. ¹		
					Predominantly used as a solvent in the manufacture of		
					pharmaceuticals and in chemical laboratories for the		
Acetonitrile	75-05-8	17		28	detection of materials such as pesticide residues. ⁶		
					2-Butanone is produced in large quantities. Nearly half of its		
					use is in paints and other coatings because it will quickly		
					evaporate into the air and it dissolves many substances.4		
					Can occur from automobile exhaust, printing inks,		
					fragrance/flavoring agent in candy and perfume, paint, glue,		
2-Butanone(MEK)	78-93-3	0.58		1.7	cleaning agents and cigarette smoke.1		
					Personal care products: nail polish, nail polish remover,		
Ethyl acetate	141-78-6	0.80		2.9	colognes, perfumes, rubbing alcohol, hair spray. ² Cyclohexane can be added to lacquers and resins, paint		
					and varnish removers, and fungicides. It is also used as a		
					fuel for camp stoves. Exposure can also occur when people		
					use products that contain cyclohexane or when they smoke		
Cyclohexane	110-82-7	2.2		7.5	cigarettes.4		
					Toluene is produced in the process of making gasoline and		
					other fuels from crude oil and making coke from coal. Will		
					occur in gasoline exhaust. Toluene is used in making		
					paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning		
Toluene	108-88-3	1.1		4.0	processes.4		
Toluette	100-00-3	1.1		4.0	processes.		

Qualifier Definitions

ND = Non Detect

Sources References

 $[\]ensuremath{\mathsf{B}}$ = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190
EMSL Sample #: 491800190-1
Customer ID: SREC85
Customer PO: 18013

Phone:

Sample ID: 0270-2 Fl.

303-297-1645

Attn: Alex Green

 S&R Environmental Consulting, Inc.
 Fax:
 303-297-1646

 5801 Logan Street, #200
 Date Collected:
 3/1/2018

 Denver, CO 80216
 Date Received:
 3/5/2018

Project: EPA 1595 Wynkoop St.

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15169.D	E0270	312.5 cc	1

Possible Background Sources of Contaminants

		Result		Result	
Target Compounds	CAS#	ppbv	Q	ug/m3	Use and Possible Sources

- (1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
- (2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
- (3) EPA, Air & Radiation, TTN Web Technology Transfer NetworkAir Toxics Web site, various years.
- (4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
- (5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
- (6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
- (7) World Health Organization,
- (8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
- (9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
- (10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
- (11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190
EMSL Sample #: 491800190-2
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018

Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0392 - 5 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	<u>Dil. Factor</u>
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH REL		OSHA PEL	
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan		76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	0.92		1.9	LFC		210000	
n-Butane		106-97-8	58.12	6.5		15	1900000		1900000	
Vinyl chloride	С	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	С	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol		64-17-5	46.07	35		66	1900000		1900000	
Bromoethene(Vinyl bromide)	С	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)		75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	3.2		7.7	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	12		29	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	27		46	34000		67000	
Tertiary butyl alcohol(TBA)		75-65-0	74.12	ND		ND	300000		300000	\Box
Bromoethane(Ethyl bromide)		74-96-4	108.00	ND		ND	880000		880000	
3-Chloropropene(Allyl chloride)	С	107-05-1	76.53	ND		ND	3100		3100	
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	
Methylene chloride	С	75-09-2	84.94	ND		ND	LFC		87000	
Acrylonitrile	С	107-13-1	53.00	ND		ND	2200		4300	
Methyl-tert-butyl ether(MTBE)	С	1634-04-4	88.15	ND		ND	N.E.		N.E.	T
trans-1,2-Dichloroethene		156-60-5	96.94	ND		ND	790000		790000	
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	
1,1-Dichloroethane	С	75-34-3	98.96	ND		ND	400000		400000	\forall
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000		N.E.	
2-Butanone(MEK)	NC	78-93-3	72.10	ND		ND	590000		590000	\top
cis-1,2-Dichloroethene		156-59-2	96.94	ND		ND	790000		790000	+
Ethyl acetate	NC	141-78-6	88.10	1.1		4.1	1400000		1400000	+
Chloroform	С	67-66-3	119.40	ND		ND	9800		240000	+
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000		590000	+
1,1,1-Trichloroethane	NC	71-55-6	133.40	ND		ND	1900000		1900000	+-
Cyclohexane	NC NC	110-82-7	84.16	ND		ND	1000000		1000000	+
2,2,4-Trimethylpentane(Isooctane)		540-84-1	114.20	ND		ND	N.E.	H	N.E.	+
Carbon tetrachloride	С	56-23-5	153.80	ND		ND ND	13000		63000	+
	NC NC	142-82-5	100.20	ND		ND	350000	H	2000000	+
n-Heptane 1,2-Dichloroethane	C	107-06-2	98.96	ND		ND ND	4000	H	2000000	+
,	1				1			\vdash		+
Benzene	C	71-43-2	78.11	ND	-	ND	320	\vdash	3200	+
Trichloroethene	C	79-01-6	131.40	ND	1	ND	130000	\vdash	540000	+
1,2-Dichloropropane	C	78-87-5	113.00	ND	-	ND	LFC	\vdash	350000	+
Methyl Methacrylate	NC	80-62-6	100.12	ND	<u> </u>	ND	410000	Н	410000	+
Bromodichloromethane	С	75-27-4	163.80	ND		ND	N.E.		N.E.	لــــــــــــــــــــــــــــــــــــــ



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 491800190-2 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: 303-297-1645 Fax: 303-297-1646

Date Collected: 3/1/2018 Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0392 - 5 Fl.

<u>Aı</u>	<u>nalysis</u>	<u>Analysis Date</u>	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	<u>Dil. Factor</u>
I	nitial	03/14/2018	KW	K15170.D	E0392	305 cc	1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH REL		OSHA PEL
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3 >
1,4-Dioxane	С	123-91-1	88.12	ND		ND	3600		360000
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000
cis-1,3-Dichloropropene**	С	10061-01-5	111.00	ND		ND	4500		N.E.
Toluene	NC	108-88-3	92.14	0.69		2.6	380000		750000
trans-1,3-Dichloropropene**	С	10061-02-6	111.00	ND		ND	4500		N.E.
1,1,2-Trichloroethane	С	79-00-5	133.40	ND		ND	55000		55000
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000
Tetrachloroethene	С	127-18-4	165.80	ND		ND	LFC		680000
Dibromochloromethane		124-48-1	208.30	ND		ND	N.E.		N.E.
1,2-Dibromoethane	С	106-93-4	187.80	ND		ND	350		150000
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000
Ethylbenzene	С	100-41-4	106.20	ND		ND	430000		430000
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000
Bromoform	С	75-25-2	252.80	ND		ND	5200		5200
1,1,2,2-Tetrachloroethane	С	79-34-5	167.90	ND		ND	6900		34000
4-Ethyltoluene		622-96-8	120.20	ND		ND	N.E.		N.E.
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000
2-Chlorotoluene		95-49-8	126.60	ND		ND	260000		N.E.
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000
1,3-Dichlorobenzene		541-73-1	147.00	ND		ND	N.E.		N.E.
1,4-Dichlorobenzene	С	106-46-7	147.00	ND		ND	LFC		450000
Benzyl chloride	С	100-44-7	126.00	ND		ND	5200		5200
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.
Hexachloro-1,3-butadiene	С	87-68-3	260.80	ND		ND	210		N.E.
Naphthalene	С	91-20-3	128.17	ND		ND	52000		52000
**The concentrations of each isomer should be added	if multiple	isomers are		The > colu	mn is u	sed to flag exceed	lences as marked	-	Į,

present and compared to the total screening level.

Exposure Limit Definitions

REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions

NIOSH= The National Institute for Occupational Safety and Health

Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)

Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)

C= Carcinogenic

NC= Non-Carcinogenic

Compound Exposure Definitions

NE= No Limit Established

LFC= Lowest Feasible Concentration

NS= No Sscreening Value

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190 EMSL Sample #: 491800190-2 Customer ID: SREC85 Customer PO: 18013

Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: 303-297-1645 303-297-1646 Fax:

Date Collected: 3/1/2018 3/5/2018 Date Received:

Project: EPA 1595 Wynkoop St.

Sample ID: 0392 - 5 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	03/14/2018	KW	K15170.D	E0392	305 cc	1

Possible Background Sources of Contaminants

	ossible backg	i ouiiu oc			
Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
					Most (99%) of the chloromethane in the environment
					comes from natural sources. Because chloromethane is
					made in the oceans by natural processes, it is present in air
					all over the world. In most areas, the outside air contains
					less than 1 part of chloromethane in a billion parts of air
					(ppb). In cities, human activities, mostly combustion and manufacturing, add to the chloromethane in the air,
					resulting in somewhat higher levels, up to 1 ppb. Cigarette
					smoke, polystyrene insulation, and aerosol propellants;
					home burning of wood, coal, or certain plastics; and
Chloromethane	74-87-3	0.92		1.9	chlorinated swimming pools. ⁴
					Aerosol spray products for some paints, cosmetics,
n-Butane	106-97-8	6.5		15	automotive products, leather treatments, pesticides. ²
					Hand sanitizers, disinfecting wipes. Personal care products:
					nail polish, nail polish remover, colognes, perfumes,
Ethanol	64-17-5	35		66	rubbing alcohol, hair spray. ²
					Eye Glass Cleaners. Disinfecting wipes. Personal care
					products: nail polish, nail polish remover, colognes,
Isopropyl alcohol(2-Propanol)	67-63-0	3.2		7.7	perfumes, rubbing alcohol, hair spray. ² Rubber cement, cleaning fluids, scented candles and nail
	07.04.4				, ,
Acetone	67-64-1	12		29	polish remover. ¹ Predominantly used as a solvent in the manufacture of
					pharmaceuticals and in chemical laboratories for the
Acetonitrile	75-05-8	27		46	detection of materials such as pesticide residues. ⁶
Acetoritine	73-03-0	ZI		40	Personal care products: nail polish, nail polish remover,
Ethyl acetate	141-78-6	1.1		4.1	colognes, perfumes, rubbing alcohol, hair spray. ²
					Toluene is produced in the process of making gasoline and
					other fuels from crude oil and making coke from coal. Will
					occur in gasoline exhaust. Toluene is used in making
					paints, paint thinners, fingernail polish, lacquers, adhesives,
					and rubber and in some printing and leather tanning
Toluene	108-88-3	0.69		2.6	processes. ⁴

Qualifier Definitions

ND = Non Detect

- B = Compound also found in method blank.
- E= Estimated concentration exceeding upper calibration range.
- D= Result reported from diluted analysis.

Sources References

- (1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June 26, 2012
- (2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
- (3) EPA, Air & Radiation, TTN Web Technology Transfer NetworkAir Toxics Web site, various years.
- (4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
- (5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
- (6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
- (7) World Health Organization,
- (8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
- (9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
- (10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
- (11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009



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EMSL Order #: 491800190
EMSL Sample #: 491800190-3
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0415 - 6 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH REL		OSHA PEL	_
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan		76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	ND		ND	LFC		210000	
n-Butane		106-97-8	58.12	6.9		16	1900000		1900000	
Vinyl chloride	С	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	С	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol		64-17-5	46.07	37		69	1900000		1900000	
Bromoethene(Vinyl bromide)	С	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)		75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	4.8		12	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	13		30	590000		2400000	\prod
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	\prod
Acetonitrile	NC	75-05-8	41.00	16		27	34000		67000	
Tertiary butyl alcohol(TBA)		75-65-0	74.12	ND		ND	300000		300000	\prod
Bromoethane(Ethyl bromide)		74-96-4	108.00	ND		ND	880000		880000	\prod
3-Chloropropene(Allyl chloride)	С	107-05-1	76.53	ND		ND	3100		3100	\top
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	\top
Methylene chloride	С	75-09-2	84.94	ND		ND	LFC		87000	\top
Acrylonitrile	С	107-13-1	53.00	ND		ND	2200		4300	$\dagger \dagger$
Methyl-tert-butyl ether(MTBE)	С	1634-04-4	88.15	ND		ND	N.E.		N.E.	\top
trans-1,2-Dichloroethene		156-60-5	96.94	ND		ND	790000		790000	$\dagger \exists$
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	$\dagger \exists$
1,1-Dichloroethane	С	75-34-3	98.96	ND		ND	400000		400000	$\dagger \exists$
Vinyl acetate	NC	108-05-4	86.00	ND		ND	14000		N.E.	+
2-Butanone(MEK)	NC	78-93-3	72.10	ND		ND	590000		590000	+
cis-1,2-Dichloroethene		156-59-2	96.94	ND		ND	790000		790000	+
Ethyl acetate	NC	141-78-6	88.10	1.1		4.0	1400000		1400000	+
Chloroform	C	67-66-3	119.40	ND		ND	9800		240000	+
Tetrahydrofuran	NC NC	109-99-9	72.11	ND		ND	590000		590000	+
1,1,1-Trichloroethane	NC NC	71-55-6	133.40	ND		ND	1900000		1900000	+
Cyclohexane	NC NC	110-82-7	84.16	ND		ND	1000000		1000000	+
2,2,4-Trimethylpentane(Isooctane)		540-84-1	114.20	ND ND		ND ND	N.E.		N.E.	+
Carbon tetrachloride	C	56-23-5	153.80	ND ND		ND ND	13000		63000	+
	NC NC	142-82-5		ND ND		ND ND	350000			+
n-Heptane			100.20		-			\vdash	2000000	+
1,2-Dichloroethane	С	107-06-2	98.96	ND	1	ND	4000	\vdash	200000	$+\!\!\!\!+$
Benzene	C	71-43-2	78.11	ND	1	ND	320	H	3200	+
Trichloroethene	C	79-01-6	131.40	ND	-	ND	130000	\vdash	540000	\vdash
1,2-Dichloropropane	C	78-87-5	113.00	ND		ND	LFC		350000	+
Methyl Methacrylate	NC	80-62-6	100.12	ND	<u> </u>	ND	410000	H	410000	+
Bromodichloromethane	С	75-27-4	163.80	ND		ND	N.E.		N.E.	Ш



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800190

EMSL Sample #: 491800190-3

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0415 - 6 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH REL	_	OSHA PEL	
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3	>
1,4-Dioxane	С	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	С	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	NC	108-88-3	92.14	0.74		2.8	380000		750000	
trans-1,3-Dichloropropene**	С	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	С	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	С	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane		124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	С	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	С	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	С	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	С	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene		622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene		95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000	
1,3-Dichlorobenzene		541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	С	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	C	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	С	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	С	91-20-3	128.17	ND		ND	52000		52000	
**The concentrations of each isomer should be add	ed if multiple	isomers are		The > colu	mn is u	sed to flag exceed	lences as marked	1		-

^{**}The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

Exposure Limit Definitions

REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions

NIOSH= The National Institute for Occupational Safety and Health

Reference

Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)

Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)

C= Carcinogenic

NC= Non-Carcinogenic

Compound Exposure Definitions

NE= No Limit Established

LFC= Lowest Feasible Concentration

NS= No Sscreening Value

Qualifier Definitions

ND = Non Detect

 $\label{eq:B} B = \text{Compound also found in method blank}.$

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.



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EMSL Order #: 491800190

EMSL Sample #: 491800190-3

Customer ID: SREC85

Customer PO: 18013

Phone:

Attn: Alex Green

 S&R Environmental Consulting, Inc.
 Fax:
 303-297-1646

 5801 Logan Street, #200
 Date Collected:
 3/1/2018

 Denver, CO 80216
 Date Received:
 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 0415 - 6 FI.

303-297-1645

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15171.D	E0415	312.5 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	0	Result ug/m3	Use and Possible Sources
raiget compounds	UAO#	ppov	×	ug/iii3	Aerosol spray products for some paints, cosmetics,
n-Butane	106-97-8	6.9		16	automotive products, leather treatments, pesticides. ²
					Hand sanitizers, disinfecting wipes. Personal care products:
					nail polish, nail polish remover, colognes, perfumes,
Ethanol	64-17-5	37		69	rubbing alcohol, hair spray. 2
					Eye Glass Cleaners. Disinfecting wipes. Personal care
					products: nail polish, nail polish remover, colognes,
Isopropyl alcohol(2-Propanol)	67-63-0	4.8		12	perfumes, rubbing alcohol, hair spray. ²
					Rubber cement, cleaning fluids, scented candles and nail
Acetone	67-64-1	13		30	polish remover. ¹
					Predominantly used as a solvent in the manufacture of
					pharmaceuticals and in chemical laboratories for the
Acetonitrile	75-05-8	16		27	detection of materials such as pesticide residues. ⁶
					Personal care products: nail polish, nail polish remover,
Ethyl acetate	141-78-6	1.1		4.0	colognes, perfumes, rubbing alcohol, hair spray. ²
					Toluene is produced in the process of making gasoline and
					other fuels from crude oil and making coke from coal. Will
					occur in gasoline exhaust. Toluene is used in making
					paints, paint thinners, fingernail polish, lacquers, adhesives,
					and rubber and in some printing and leather tanning
Toluene	108-88-3	0.74		2.8	processes. ⁴

Qualifier Definitions

ND = Non Detect

- B = Compound also found in method blank.
- E= Estimated concentration exceeding upper calibration range.
- D= Result reported from diluted analysis.

Sources References

- $\hbox{(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June~26, 2012 }$
- (2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
- $(3) \ EPA, \ Air \ \& \ Radiation, \ TTN \ Web Technology \ Transfer \ Network Air \ Toxics \ Web \ site, \ various \ years.$
- (4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
- (5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
- (6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
- (7) World Health Organization,
- (8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
- (9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
- (10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
- (11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009



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EMSL Order #: 491800190
EMSL Sample #: 491800190-4
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018
Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 15341 - 7 Fl.

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH RE	L	OSHA PE	L
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3	>
Propylene	NC	115-07-1	42.08	ND		ND	N.E.		N.E.	T
Freon 12(Dichlorodifluoromethane)	NC	75-71-8	120.90	ND		ND	4900000		4900000	
Freon 114(1,2-Dichlorotetrafluoroethan		76-14-2	170.90	ND		ND	7000000		7000000	
Chloromethane	NC	74-87-3	50.49	0.82		1.7	LFC		210000	
n-Butane		106-97-8	58.12	5.8		14	1900000		1900000	
Vinyl chloride	С	75-01-4	62.50	ND		ND	LFC		2600	
1,3-Butadiene	С	106-99-0	54.09	ND		ND	LFC		2200	
Bromomethane	NC	74-83-9	94.94	ND		ND	LFC		78000	
Chloroethane	NC	75-00-3	64.52	ND		ND	LFC		2600000	
Ethanol		64-17-5	46.07	34		65	1900000		1900000	
Bromoethene(Vinyl bromide)	С	593-60-2	106.90	ND		ND	LFC		N.E.	
Freon 11(Trichlorofluoromethane)		75-69-4	137.40	ND		ND	5600000		5600000	
Isopropyl alcohol(2-Propanol)	NC	67-63-0	60.10	4.0		10	980000		980000	
Freon 113(1,1,2-Trichlorotrifluoroethan	NC	76-13-1	187.40	ND		ND	7700000		7700000	
Acetone	NC	67-64-1	58.08	7.3		17	590000		2400000	
1,1-Dichloroethene	NC	75-35-4	96.94	ND		ND	790000		790000	
Acetonitrile	NC	75-05-8	41.00	2.5		4.2	34000		67000	
Tertiary butyl alcohol(TBA)		75-65-0	74.12	ND		ND	300000		300000	\top
Bromoethane(Ethyl bromide)		74-96-4	108.00	ND		ND	880000		880000	\top
3-Chloropropene(Allyl chloride)	С	107-05-1	76.53	ND		ND	3100		3100	\top
Carbon disulfide	NC	75-15-0	76.14	ND		ND	3100		62000	+
Methylene chloride	С	75-09-2	84.94	ND		ND	LFC		87000	+
Acrylonitrile	C	107-13-1	53.00	ND		ND	2200		4300	+
Methyl-tert-butyl ether(MTBE)	C	1634-04-4	88.15	ND		ND	N.E.		N.E.	+
trans-1,2-Dichloroethene		156-60-5	96.94	ND		ND	790000		790000	+
n-Hexane	NC	110-54-3	86.17	ND		ND	180000		1800000	+
1,1-Dichloroethane	C	75-34-3	98.96	ND		ND	400000		400000	+
Vinyl acetate	NC NC	108-05-4	86.00	ND		ND ND	14000	1	N.E.	+
2-Butanone(MEK)	NC NC	78-93-3	72.10	0.62		1.8	590000	1	590000	+
		156-59-2	96.94	ND		ND				+
cis-1,2-Dichloroethene						4.0	790000	+	790000	+
Ethyl acetate	NC O	141-78-6	88.10	1.1			1400000	+	1400000	+
Chloroform	C	67-66-3	119.40	ND		ND	9800	-	240000	-
Tetrahydrofuran	NC	109-99-9	72.11	ND		ND	590000		590000	+
1,1,1-Trichloroethane	NC	71-55-6	133.40	ND		ND	1900000	+	1900000	+
Cyclohexane	NC	110-82-7	84.16	0.66		2.3	1000000	+	1000000	+
2,2,4-Trimethylpentane(Isooctane)		540-84-1	114.20	ND		ND	N.E.	_	N.E.	_
Carbon tetrachloride	С	56-23-5	153.80	ND		ND	13000		63000	+
n-Heptane	NC	142-82-5	100.20	ND	1	ND	350000	$oldsymbol{\perp}$	2000000	4
1,2-Dichloroethane	С	107-06-2	98.96	ND		ND	4000		200000	4
Benzene	С	71-43-2	78.11	ND		ND	320		3200	\bot
Trichloroethene	С	79-01-6	131.40	ND		ND	130000		540000	\perp
1,2-Dichloropropane	С	78-87-5	113.00	ND		ND	LFC		350000	\perp
Methyl Methacrylate	NC	80-62-6	100.12	ND		ND	410000		410000	
Bromodichloromethane	С	75-27-4	163.80	ND		ND	N.E.		N.E.	



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EMSL Order #: 491800190
EMSL Sample #: 491800190-4
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 3/1/2018

Date Received: 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 15341 - 7 Fl.

<u>Analysis</u> Initial	Analysis Date 03/14/2018	Analyst Init. KW	Lab File ID K15172.D	Canister ID E015341	Sample Vol. 305 cc	Dil. Factor
muai	03/14/2010	NW .	NIOTIZ.D	2010041	303 00	·

NIOSH and OSHA Exposure Limit Comparisons

	Tox.			Result		Result	NIOSH REL	-	OSHA PEL	
Target Compounds	Basis	CAS#	MW	ppbv	Q	ug/m3	ug/m3	>	ug/m3	>
1,4-Dioxane	С	123-91-1	88.12	ND		ND	3600		360000	
4-Methyl-2-pentanone(MIBK)	NC	108-10-1	100.20	ND		ND	200000		410000	
cis-1,3-Dichloropropene**	С	10061-01-5	111.00	ND		ND	4500		N.E.	
Toluene	NC	108-88-3	92.14	1.2		4.5	380000		750000	
trans-1,3-Dichloropropene**	С	10061-02-6	111.00	ND		ND	4500		N.E.	
1,1,2-Trichloroethane	С	79-00-5	133.40	ND		ND	55000		55000	
2-Hexanone(MBK)	NC	591-78-6	100.10	ND		ND	4100		410000	
Tetrachloroethene	С	127-18-4	165.80	ND		ND	LFC		680000	
Dibromochloromethane		124-48-1	208.30	ND		ND	N.E.		N.E.	
1,2-Dibromoethane	С	106-93-4	187.80	ND		ND	350		150000	
Chlorobenzene	NC	108-90-7	112.60	ND		ND	N.E.		350000	
Ethylbenzene	С	100-41-4	106.20	ND		ND	430000		430000	
Xylene (p,m)	NC	1330-20-7	106.20	ND		ND	430000		430000	
Xylene (Ortho)	NC	95-47-6	106.20	ND		ND	430000		430000	
Styrene	NC	100-42-5	104.10	ND		ND	210000		430000	
Isopropylbenzene (cumene)	NC	98-82-8	120.19	ND		ND	250000		250000	
Bromoform	С	75-25-2	252.80	ND		ND	5200		5200	
1,1,2,2-Tetrachloroethane	С	79-34-5	167.90	ND		ND	6900		34000	
4-Ethyltoluene		622-96-8	120.20	ND		ND	N.E.		N.E.	
1,3,5-Trimethylbenzene	NC	108-67-8	120.20	ND		ND	120000		120000	
2-Chlorotoluene		95-49-8	126.60	ND		ND	260000		N.E.	
1,2,4-Trimethylbenzene	NC	95-63-6	120.20	ND		ND	120000		120000	
1,3-Dichlorobenzene		541-73-1	147.00	ND		ND	N.E.		N.E.	
1,4-Dichlorobenzene	С	106-46-7	147.00	ND		ND	LFC		450000	
Benzyl chloride	С	100-44-7	126.00	ND		ND	5200		5200	
1,2-Dichlorobenzene	NC	95-50-1	147.00	ND		ND	300000		300000	
1,2,4-Trichlorobenzene	NC	120-82-1	181.50	ND		ND	37000		N.E.	
Hexachloro-1,3-butadiene	С	87-68-3	260.80	ND		ND	210		N.E.	
Naphthalene	С	91-20-3	128.17	ND		ND	52000		52000	
**The concentrations of each isomer should be a		isomers are		The > colu	ımn is u	sed to flag exceed	lences as marked	-		P

^{**}The concentrations of each isomer should be added if multiple isomers are present and compared to the total screening level.

Exposure Limit Definitions

REL= Recommended Exposure Limit, PEL= Permissable Exposure Limit

Agency Definitions

NIOSH= The National Institute for Occupational Safety and Health

Reference

Occupational Safety and Health Administration (OSHA) General Industry Air Contaminants Standard (29 CFR 1910.1000)

Toxicity Class (EPA Regionional Screening Levels (RSL) Table, Nov 2017)

C= Carcinogenic

NC= Non-Carcinogenic

Compound Exposure Definitions

NE= No Limit Established

LFC= Lowest Feasible Concentration

NS= No Sscreening Value

Qualifier Definitions

ND = Non Detect

 $\label{eq:B} B = \text{Compound also found in method blank}.$

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.



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Customer PO: 18013

Phone:

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 5801 Logan Street, #200
 Date Collected:
 3/1/2018

 Denver, CO 80216
 Date Received:
 3/5/2018

Project: EPA 1595 Wynkoop St.

Sample ID: 15341 - 7 FI.

Sample Vol. Dil. Factor

303-297-1645

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	03/14/2018	KW	K15172.D	E015341	305 cc	1

Possible Background Sources of Contaminants

Target Compounds	CAS#	Result ppbv	Q	Result ug/m3	Use and Possible Sources
					Aerosol spray products for some paints, cosmetics,
n-Butane	106-97-8	5.8		14	automotive products, leather treatments, pesticides. ²
					Hand sanitizers, disinfecting wipes. Personal care products:
					nail polish, nail polish remover, colognes, perfumes,
Ethanol	64-17-5	34		65	rubbing alcohol, hair spray. ²
					Eye Glass Cleaners. Disinfecting wipes. Personal care
					products: nail polish, nail polish remover, colognes,
Isopropyl alcohol(2-Propanol)	67-63-0	4.0		10	perfumes, rubbing alcohol, hair spray. ²
					Rubber cement, cleaning fluids, scented candles and nail
Acetone	67-64-1	7.3		17	polish remover.1
					Predominantly used as a solvent in the manufacture of
					pharmaceuticals and in chemical laboratories for the
Acetonitrile	75-05-8	2.5		4.2	detection of materials such as pesticide residues. ⁶
					Personal care products: nail polish, nail polish remover,
Ethyl acetate	141-78-6	1.1		4.0	colognes, perfumes, rubbing alcohol, hair spray. ²
					Toluene is produced in the process of making gasoline and
					other fuels from crude oil and making coke from coal. Will
					occur in gasoline exhaust. Toluene is used in making
					paints, paint thinners, fingernail polish, lacquers, adhesives,
					and rubber and in some printing and leather tanning
Toluene	108-88-3	1.2		4.5	processes. ⁴

Qualifier Definitions

ND = Non Detect

- $\ensuremath{\mathsf{B}}$ = Compound also found in method blank.
- E= Estimated concentration exceeding upper calibration range.
- D= Result reported from diluted analysis.

Sources References

- $\hbox{(1) NJDEP "Common Household Sources of Background Indoor Air Contamination". June~26, 2012 }$
- (2) NYSDOH "Volatile Organic Compounds (VOCs) in Commonly Used Products", 2007
- $(3) \ EPA, \ Air \ \& \ Radiation, \ TTN \ Web Technology \ Transfer \ Network Air \ Toxics \ Web \ site, \ various \ years.$
- (4) Agency for Toxic Substances and Disease Registry (ATSDR). U.S. Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA. 1998.
- (5) OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. ENVIRONMENTAL PROTECTION AGENCY, August 1994, EPA 749-F-94-012a
- (6) U.S. Environmental Protection Agency, Office of Research and Development, Cincinnati, OH. 1985.
- (7) World Health Organization,
- (8) Product Safety Assessment, Revised: November 19, 2010 The Dow Chemical Company
- (9) California Office of Environmental Health Hazard Assessment, PROPOSED ACTION LEVEL FOR 2-CHLOROTOLUENE
- (10) Delaware Health and Social Services, Division of Public Health, Revised: 01/2010
- (11) USEPA, Envirofacts Master Chemical Integrator (EMCI), Scorecard, 4/10/2009

USEPA TO-15 External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, inc. 200 Route 130 North Cinnaminson, NJ 08077 Ph. (800) 220-3675 Fax (858) 786-0327

Matrix Juay Viñbne, らっての Reason for Exchange (circle appropriate Seil Gas 80202 ind sort Ambient Air (Specify) Other Analysis 8/80/3 Sample Collection Zip Code: LIBRARY SEARCH ALDEP LLTO-15 Receiving Rocelving Sampled By (Name): Analyst Signature (TO-15): Sampled By (Sign): Total # of Samples: ab Canister Certification **BI-OT A938U** Purchase Order: Date Shipped: Cal Flow (ml/mh) 21.2 Flow Contoller Courier Courier 36652 屬 3768 δ. Ο 7.88H 3705 A Results Only (Schuderd Lab Report) Incoming Prossure ("Hg) Seal #/Intact 320-32 Lab Use Only 0415 - (et - 320 924 7584 Ohbe GEG-120-3768 0392.5- 020 96- 3656 Outpoing Pressure ("Hg) (3563 - 30.0 1595 Uyakasa Canister Information Car Cert Betch ID Fax ☐ Full Deliverables (Surcharge may apply) O, Date/ Time S S ڡۣ 00 -4918001 Reporting Format: פרבס 🖻 2950 127 Centator ID 1534 SIHO Project Name: EPA Other Interior Bill To Company: Sampling Stop Information 954-20 -3708 Attention To: Ê Phone No.: Address 1: Address 2: Received by: Barometric Pres. ("Hg): Time (24 hr clock) 2-28-18 14:40 2.28-18 14:45 4:10 3-1-18 14:15 31-18 Stop Date Field Use - All Information Required 3 284 Other EMSL Order Number (Lab Use Only): A-49 Day Standard Email Results TO: 80216 10 276- AFL USES Marior Tomp. 6347 18 14.3 Company Name: 5 &R ENVERDOMMENTAL Sampling Start Information 2123/18 1629 Date/ Time Centster Time (24 Pressure In clock) (74g) 80 25 10,56 25 Fax 8 Barometric Pres. ("Hg): 9 furnaround Time (in Business Days): 15341-75 5801 Lours 2-28-18 10:45 3-1-18 10:45 3-1-18 10:10 1 to 1 to 2 DENNER 8-88-8 Start Date Report To Contact Name: Relinquished by: 144-1 6270-RE OHIS- GEL 55 dentification Comments: Clent Field Phone No.: Address 1: Address 2: 639.R-700 □ 5 Pay 2 2 2 Ь S ∇ HAM Sample Identifier EWSF RECEIVER

Controlled Decument - COC-5D TO-15 Chrominson R7.1 2017,07,26

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10-15 \$8	ample information	
Please fill out this worksheet in addition to the Chain of Cust requested TAT, and provide you with helpful interpretation i	tody form. This information helps us to best line lyze your samples, information.	Schleve
company: SAR Environmental	Consulting	
Contact Person:		·
Name: Mex Green		
E-mail: 9/ex@srenvionne	talconsulting.com	
Additional E-mails:	/~	
Telephone #: 303 - 297 - 1645		
A library search (aka Tentatively Identified Compounds) will identify up to	to 20 of the largest, non-target peaks that are not part of the standard TO-15 lis gation, the library search is recommended to provide you with all available infor	
Sample Type:		
[] Indoor Air Quality (Home/Office) [] IAQ (Industrial) [] Other:	[] Soil Gas/Sub Slab	
Sample Description:		
agency. If you would like that information, please check off below when the combined form [] EPA RSLs - 11/2017 Residential Industrial [] NJ DEP 1/2018 - Circle one: VI-Indoor AQ VI-Soil Gas [] NC DENR 4/2014-Circle one: Residential Non-residen [] PA DEP - 11/2016 Indoor Air [] PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas [] CA HHSL 11/2004-Circle one: Indoor Air Soil Gas	Potential Sources of Compounds found in your IAQ sample TVOC (Library Search Required for this format) [] Ohio 4/2013 - Circle one: Residential Commercial ntial [] Indiana Dept Env Mgmt Screeening Levels 3/2016 [] Vermont DEP IROCP 4/2012 (soil gas only) [] California OEHHA 2/2012 [] Other; these are the compounds I want reported:	
Please note: There is an additional charge for any of the tests below. US Cinnaminson NJ Laboratory.	SEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at t	the ,
US EPA TO-3 via GC/FID (choose one below):	ASTM-D5504 via GC/SCD (choose one below): **	
	[] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS) [] H ₂ S only	
* Note:	e schedule your sample collection so samples are received in the lab prior to no	
on Friday. Analysis performed out of hold time will have a notation in	the report.	
· · · · · · · · · · · · · · · · · · ·	naminson and Huntington Beach laboratories. Please note these tests are to be applying techniques for these parameters (with the exception of water vapor); ple charge for any of the tests below.	
•	for one day after results are reported. Please review your results promptly to er period of time, but arrangements to hold your cans must be made through	



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: wohl-lab.org

ALEX GREEN
S & R ENVIRONMENTAL CONSULTING
STE 200
5801 LOGAN ST
DENVER, CO 80216

Lab Workorder ID 369237

Visit/Project ID 1595 WYNKOOP ST EPA

PO 018013

Received March 5, 2018 **Reported** March 12, 2018

Report ID 5065532

Previous Report IDs

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on March 5, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Page 1 of 3 Report ID: 5065532



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403

Fax: (608) 224-6213 Web: www.wohl-lab.org

Final Report

L L ID coccerce			0 1	D 015				M 11 01/0 - TUDE	
Lab ID: 369237001			Sample		U5			Media: OVS-7 TUBE	
Sampling Date: 2/28/2018			Matrix: A	\ir				Sampled Time:	
								RESULT	
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	3/8/2018	105 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.014 mg/m3	
Lab ID: 369237002			Sample	ID: CAP-	06			Media: OVS-7 TUBE	
Sampling Date: 2/28/2018			Matrix: A	Air				Sampled Time:	
								RESULT	
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	3/8/2018	109 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.014 mg/m3	
Lab ID: 369237003			Sample	D: CAP-	07			Media: OVS-7 TUBE	
Sampling Date: 3/1/2018			Matrix: A	Air				Sampled Time:	
								RESULT	
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	3/8/2018	107 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.014 mg/m3	
Lab ID: 369237004			Sample	ID: CAP-	02			Media: OVS-7 TUBE	
Sampling Date: 3/1/2018			Matrix: A	\ir				Sampled Time:	
								RESULT	
Analyte	Method	Analysis	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Analyto		Date	volulile	LIIIII					



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: www.wohl-lab.org

Final Report

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter ug = micrograms ppb or ppbv = parts per billion /ft2 = per square foot

ng = nanograms EU = Endotoxin Units fibers/cc = fibers per cubic centimeter

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

This report is not to be reproduced except in its entirety



EMSL Analytical - Industrial Hygiene

200 Route 130 North, Cinnaminson, NJ 08077

(800) 220-3675 / Phone/Fax:

http://www.EMSL.com

IndustrialHygienelab@emsl.com

EMSL Order: 281801953 CustomerID: SREC85 CustomerPO: 018013

ProjectID:

Alex Green S&R Environmental Consulting, Inc. 5801 Logan Street, #200 **Denver, CO 80216**

(303) 297-1645 Phone: Fax: (303) 297-1646 Received: 05/01/18 10:40 AM

Analysis Date: 5/3/2018 Collected: 4/29/2018

Project: EPA - Floor 4 - Clearance

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	Location	Volume (L)	Initial Weight (mg)	Final Weight (mg)	Sample Weight (mg)	Concentration (µg/m³)	Reporting Limit (μg/m³)	Notes
4-CL-PM10	4th Floor	2472	55.105	55.618	0.51	210	0.81	
281801953-0001								

Discernable field blank not submitted with samples. Notes:

Results are not field blank corrected.

Analyst(s) Vincent Kurp (1)

Scott Van Etten, CIH, Laboratory Manager or other approved signatory

1

The laboratory is not responsible for data reported in mg/m3, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. This report may not be reproduced, except in full, without written approval by EMSL. Samples received in good condition unless otherwise noted. Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ

Initial report from 05/03/2018 10:40:29

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): -28180195

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 858-3502

	LABOURA CONT. INCODUCT BET	TICHERO	7		1			7			(and (and) 'vy I	7
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:	City: Denves] [Zip/Postal Code:	e: 30216	6 City:			State/Province:	ince:	Zip/Postal Code:	
•	Phone: 351 -	548				Phone:		٠.	-	Fax:	,	•
:	Project Name:	Project Name: EPA - Floor 4-	Clearance	6	Email Re	sults To: 4	lex@ster	Email Results To: विX@S[e^V]: ि ।		U.S. State whe	U.S. State where Samples Collected: \subset	٥
•	#Samples in Shipment: 3		Date of Shipment: 7	1/24/18	Purchas	Purchase Order: O	610810	Sampled	Sampled By (Signature):	e): ///	The second	
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	Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample	Sample Time On Off	Volume / Area	Sample Type	Sample Date	Comments	
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EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID: Customer ID: Customer PO:

281801956 SREC85 018013

Project ID:

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200

Denver, CO 80216

Phone: Fax:

(303) 297-1645 (303) 297-1646

Collected:

Received: 5/01/2018 Analyzed: 5/01/2018

Proj: EPA - Floor 4, Clearance

Test Report: Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Co	ncentration	Reporting Limit
4-CL-FORM 281801956-0001	Floor 4 Clearance	24 L	0.051 μg	0.0021 mg/m³	0.0017 ppm	0.0021 mg/m³
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)

Thomas Cancglin

Scott Van Etten, CIH, Laboratory Manager

SWVayW

Any questions please contact Scott VanEtten.

Initial report from: 05/03/2018 15:36:01

- 1. Samples were received in acceptable condition unless otherwise noted.
- These results relate only to the samples tested.
 Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
- 4. A discernable Field Blank was submitted if listed above as a discrete sample

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

Industrial Hygiene Chain of Custody EMSL Order Number (Lab Use Only):

ASL Order Number (Lab Use Only):

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 858-3502

Report To Cont	Report To Contact Name: Hex Green	een			Bill To Cor	Bill To Company: </th <th>14</th> <th></th> <th>Client ID #:</th> <th></th>	14		Client ID #:	
Company Name:	B. SAR ENVIRONA	Environmental Consulting	4/41.		Attention To:	, i	MIC			
Street: 580/	7000	St. # 200	7		Street:					
City: DEAVES			Zip/Postal Code: 802/6	80216	City:		State/Province:	ince:	Zip/Postal Code:	
Phone: 307	Phone: 301 - 5 48 - 1/75 Fax:				Phone:			Fax:		
Project Name: 2	Project Name: EPA - Floor U-	4- Clearance	9	Email Res	Email Results To: 4/ex@S[e.v.; fo. M P.a/s	S FEAV: FORM		U.S. State wh	U.S. State where Samples Collected:	
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Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On Off	me Volume Off / Area	e Sample Type	Sample Çate	Comments	
4-CL-PM10	4th Floor		37 MM Filter			2472	L BArea	4/24/18		
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A .		æ	4/29	8//)	5 18	D
Comments:										5
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Controlled Document - Industrial Hygiene COC - R4 - 9/8/2015



Report Date:

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281801958

Alex Green Attn:

S&R Environmental Consulting, Inc

5801 Logan Street, #200

Denver, CO 80216

Customer ID: Customer PO: SREC85 018013

Date Received:

05/01/2018

Project: EPA - Floor 4, Clearance

05/03/2018

EMSL Project ID: Date Analyzed:

05/01/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA **CSI Method**

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m³)	Reporting Limit (µg/m³)
281801958-0001	4-CL-4PCH	24	< 0.030	<1.3	<1.3
Desorption Blank	-	0	< 0.030	ND	NA

Notes:

- Samples were received in acceptable condition unless otherwise noted.
- These results relate only to the samples tested.
- 3. Sample results are not blank corrected unless otherwise noted.
- 4. Discernable field blank(s) submitted with samples if reported above.

TC/VK/VMD

Analyst

Scott VanEtten, CIH- Lab Manager Or other approved signatory

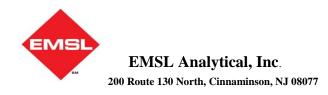


Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 Fax: (856) 858-3502

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Comments	Sample Pate	Sample Type	Volume / Area	Sample Time On Off	Sam	Flow (lpm)	Media	Analyte / Method	Location/Description	Client Sample ID
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)	Fax:	Ę		Phone:	Pho				5 48 - 1/75 Fax:	Phone: 307 -
Zip/Postal Code:		State/Province:		y:	6 city:	e: 8021	Zip/Postal Code: 802/6		State/Province: (city: Denves
				Street:	Stre		1	# 200	4090	Street: 5 80
		2	11/1/2	Attention To:	Atte		altin	rest Consu	· SAR Environmata	Company Name:
#	Client ID #:	1	5/1	Bill To Company:	Bill			Green	Mex	Report To Contact Name:



EMSL Order ID: 491800401

Attn: Alex Green Customer ID: SREC85

S&R Environmental Consulting, Inc

5801 Logan Street, #200 Date Received: 5/1/2018

Denver, CO 80216

Project: EPA/Boots

Report Date: 5/3/2018 Data Analyzed: 5/1/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800401-1	4-CL-TO15	Carbon dioxide	250	550
		Carbon monoxide	6.2	<6.2

K. Wolkowicz	Marge Howley
Analyst	Lab Manager



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800401**Customer ID: **SREC85**Customer PO: **18013**

Attn: Alex Green

Project: EPA/Boots

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645**

Fax: **303-297-1646**

Date Collected: 4/30/2018

Date Received: 5/1/2018

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800401-0001	4-CL-TO15	4/30/2018	9:30 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date: 5/3/2018

Report Revision

R0

Revision Comments
Initial Report

Marjorie Howley, Laboratory Manager

or other approved signatory

Majour Howley

Test results meet all NELAP requirements unless otherwise specified.

NJDEP Certification #: 03036



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800401
EMSL Sample #: 491800401-1
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: **4/30/2018**Date Received: **5/1/2018**

Project: **EPA/Boots** Sample ID: 4-CL-T015

 Analysis
 Analysis Date
 Analyst Init.
 Lab File ID
 Canister ID
 Sample Vol.
 Dil. Factor

 Initial
 05/01/2018
 TP
 K15645.D
 E0392
 307.5 cc
 1

Target Compound Results Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0	
n-Butane	106-97-8	58.12	3.8	0.50		9.1	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	40	0.50		75	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	2.3	0.50		5.6	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	6.2	0.50		15	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	27	0.50		45	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.80	0.50		2.8	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.54	0.50		1.6	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	2.2	0.50		8.1	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800401 491800401-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: 303-297-1645 303-297-1646

Fax: 4/30/2018 Date Collected: 5/1/2018 Date Received:

Project: EPA/Boots Sample ID: 4-CL-TO15

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	05/01/2018	TP	K15645.D	E0392	307.5 cc	1

Target Compound Results Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.3	0.50		4.8	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations			84	ppbv		170	ug/m3	

Result **Spike** Surrogate Recovery 9.9 10 99% 4-Bromofluorobenzene

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800401 EMSL Sample #: 491800401-1 Customer ID: SREC85 Customer PO: 18013

Alex Green

S&R Environmental Consulting, Inc. 5801 Logan Street, #200

Denver, CO 80216

Phone: **303-297-1645** Fax: 303-297-1646

Date Collected: 4/30/2018 Date Received: 5/1/2018

Project: EPA/Boots Sample ID: 4-CL-TO15

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/01/2018	TP	K15645.D	E0392	307.5 cc	1

Tentatively Identified Compound Results Summary

	T	on time a	_	ı rtocur	is Summar		
			Result		Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments
Propane	000074-98-6	44	3.1	JN	5.5	5.52	
Butane, 2-methyl-	000078-78-4	72	2.3	JN	6.9	8.08	
Pentane	000109-66-0	72	2.0	JN	5.8	9.01	
	+						
	+						
	Total TIC Conce	entrations:	7.4	ppbv	18	ug/m3	

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800401
EMSL Sample #: 491800401-1
Customer ID: SREC85
Customer PO: 18013

Phone:

Fax:

Attn: Alex Green

S&R Environmental Consulting, Inc. 5801 Logan Street, #200

 5801 Logan Street, #200
 Date Collected: 4/30/2018

 Denver, CO 80216
 Date Received: 5/1/2018

Project: **EPA/Boots**

Sample ID: 4-CL-TO15

303-297-1645

303-297-1646

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	<u>Dil. Factor</u>
Initial	05/01/2018	TP	K15645.D	E0392	307.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
n-Butane	106-97-8	58.12	3.8	0.50		9.1	1.2	
Ethanol	64-17-5	46.07	40	0.50		75	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	2.3	0.50		5.6	1.2	
Acetone	67-64-1	58.08	6.2	0.50		15	1.2	
Acetonitrile	75-05-8	41.00	27	0.50		45	0.84	
n-Hexane	110-54-3	86.17	0.80	0.50		2.8	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.54	0.50		1.6	1.5	
Ethyl acetate	141-78-6	88.10	2.2	0.50		8.1	1.8	
Toluene	108-88-3	92.14	1.3	0.50		4.8	1.9	
T / IT / O			0.4			470		

Total Target Compound Concentrations: 84 ppbv 170 ug/m3

Qualifier Definitions

B = Compound also found in method blank.

 $\hbox{\it E=Estimated concentration exceeding upper calibration range}.$

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Propane	000074-98-6	44	3.1		JN	5.5	5.52	
Butane, 2-methyl-	000078-78-4	72	2.3		JN	6.9	8.08	
Pentane	000109-66-0	72	2.0		JN	5.8	9.01	
	Total TIC Conce	ntrations:	7.4	vdaa		18	ua/m3	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs): 91 ppbv 190 ug/m3

Shipping Courier Receiving Sampling Other:

Shipping Courier Receiving Sampling

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EME	EMSL ANALYTICAL, INC.

External Chain of Custody/ Field Test Data Sheet **USEPA TO-15**

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EMSL Analytical, Inc. 200 Route 130 North	Cinnaminson, NJ Ph. (800) 220-3675	Fax (856) 786-0327		\ E		5	on Zi	0			上				AGEPA IJDEP	ìX					_				_	tion	-15):	chan	Receiving	Receiving	Receiving	
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Controlled Document - COC-50 TO-15 Cirneminson R7.1 2017,07.26

491800401

TO-FM-12 Sample Information Revision 9 Effective Date: January 22, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

C					
Company: SARE	WIRON	PIUSI	~	Consuczna	
Contact Person:	William				
Name: ALEX	GREEN				
E-mail: ALEX CE	RETUZAO	~~;	5V.	TALCONSULTENG, COM	
Additional E-mails:					
Telephone #: 303	-297 - 3	3965	<u> </u>		
		ill identify up		O f the largest, non-target peaks that are not part of the standard To the library search is recommended to provide you with all availab	
Sample Type:					
Indoor Air Quality (Hor [] IAQ (Industrial) [] Other: Sample Description:	ne/Office)			[] Soil Gas/Sub Slab	
				esults have exceeded any Exposure Limit criteria established by ulatory comparison forms you would like to receive.	any regulatory
[] OSHA PELs/NIOSH REL	S combined form		[] Potential Sources of Compounds found in your IAQ sample	
[] EPA RSLs - 11/2017	Residential	Industrial	£	TVOC (Library Search Required for this format)	
[] NJ DEP 1/2018 - Circle o	ne: VI-Indoor AQ	VI-Soil Gas	ī	Ohio 4/2013 -Circle one: Residential Commercial	2
[] NC DENR 4/2014 -Circle	one: Residential	Non-residen	tial [] Indiana Dept Env Mgmt Screeening Levels 3/2016	
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[] CA HHSL 11/2004 -Circle	one: Indoor Air	Soil Gas	[] Other; these are the compounds I want reported:	- Z 3
Please note: There is an addition Cinnaminson NJ Laboratory.	al charge for any of the te	ests below. US	EPA TO	0-3 AND ASTM 5504 analyses can be performed from your canist	teratifie N. H
US EPA TO-3 via GC/FID (ch	oose one below):		ASTM	-D5504 via GC/SCD (choose one below): T	w E
[] C ₁ -C ₆ hydrocarbons [] Methane only			[]Su	ılfur Scan (H₂S, COS, MeSH, EtSH, DMS) S only	.0
on Friday. Analysis performed of We can provide the following CN	out of hold time will have AS tests from your caniste EMSL recommends alter	e a notation in ers at the Cinna rnate field sam an additional	the rep aminso apling to	n and Huntington Beach laboratories. Please note these tests are echniques for these parameters (with the exception of water vapor	re to be used for
Sample Retention Policy: All ca your project scope is fully addre customer account representativ	nisters are guaranteed to ssed. Cans may be retain	be retained f	ior one (er perio	day after results are reported. Please review your results promp d of time, but arrangements to hold your cans must be made th	otly to ensure rough your



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: wohl-lab.org

ALEX GREEN
S & R ENVIRONMENTAL CONSULTING
STE 200
5801 LOGAN ST
DENVER, CO 80216

Lab Workorder ID 378823

Visit/Project ID EPA/BOOTS

PO 018013

 Received
 May 1, 2018

 Reported
 May 3, 2018

 Report ID
 5228622

Previous Report IDs

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on May 1, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Page 1 of 2 Report ID: 5228622



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213

Web: www.wohl-lab.org

Final Report

Lab ID: 378823001 Sample ID: 4-CL-CAP Media: OVS-7 TUBE

Sampling Date: 4/29/2018 Matrix: Air Sampled Time:

								RESULT	
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	5/2/2018	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter ug = micrograms ppb or ppbv = parts per billion /ft2 = per square foot

ng = nanograms EU = Endotoxin Units fibers/cc = fibers per cubic centimeter

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

This report is not to be reproduced except in its entirety



EMSL Analytical - Industrial Hygiene

200 Route 130 North, Cinnaminson, NJ 08077

(800) 220-3675 / Phone/Fax:

http://www.EMSL.com IndustrialHygienelab@emsl.com EMSL Order: 281802056 CustomerID: SREC85 CustomerPO: 018013

ProjectID:

Alex Green S&R Environmental Consulting, Inc. 5801 Logan Street, #200 **Denver, CO 80216**

(303) 297-1645 Phone: Fax: (303) 297-1646 Received: 05/08/18 11:00 AM

Analysis Date: 5/9/2018 Collected: 5/7/2018

Project: EPA - Floor 3 - Clearances

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	Location	Volume (L)	Initial Weight (mg)	Final Weight (mg)	Sample Weight (mg)	Concentration (µg/m³)	Reporting Limit (µg/m³)	Notes
3-CL-PM10	3rd Floor	2472	56.222	57.994	1.8	730	0.81	
281802056-0001								

Discernable field blank not submitted with samples. Notes:

Results are not field blank corrected.

Analyst(s) Katherine Foster (1)

Scott Van Etten, CIH, Laboratory Manager or other approved signatory

1

The laboratory is not responsible for data reported in mg/m3, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. This report may not be reproduced, except in full, without written approval by EMSL. Samples received in good condition unless otherwise noted. Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ

Initial report from 05/09/2018 12:30:02

Industrial Hygiene

Chain of Custody

EMSL Order Number (Lab Use Only):

- 2 8 1 8 0 2 0 5 6

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 858-3502

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Report To Cont	Report To Contact Name: #16% (ったと)	ce,		ļ	Bill To Company:		ングルル		Client ID #:
Company Name:	B: SGR ENVIRONMENFA	ental Const	54/42.		Attention To:				
Street: 580	Street: 586[Loga, SJ. # 200	نامع ا	7		Street:				1
City: Seaver	State/		Zip/Postal Code: 802/2	3:80212	City:		State/Province:	nce:	Zip/Postal Code:
Phone: 303	Phone: 301 - 548-1175 Fax:				Phone:			Fax:	
Project Name:		Clearances		Email Resu	Its To: 4/ex@	Email Results To: qleXのSienVigonesafal	Carsh Hay	U.S. State whe	U.S. State where Samples Collected:
# Samples in Shipment:	2	Date of Shipment:5	81/4/5	Purchase C	Purchase Order: 0/8 0/3		Sampled By (Signature):-	9: /// B	5
Turnaround	Turnaround Time (TAT) - Please Check: If No Selection Made,	heck: If No Se	lection Mad		Standard 2 Week TAT Will Apply	Will Apply	Media Type:		/0gr-1645
2 Week	1 Week 14 Day	7 □3 Day	☐2 Day		y Othe	Other (Call Lab)	Manufactu	Manufacturer/Part #:	Lot #:
Client Sample ID	Location/Description	Analyte / Method	Media	Flow (Ipm)	Sample Time On Off	me Volume Off / Area	Sample Type	Sample Date	Comments
3-66-PM10	3 cd Noor	EPA 18 -	37 FF F.14c			2472	KArea	81/4/5	
3-CL-4RH			4166			1 42	∠ A Area		12
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Comments:								-	A) S011+
Controlled Document - Indust	Controlled Document - Industrial Hygiene COC R4 - 9/8/2015		Page /	of	pades				0 × 1 mid

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Project:

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281802057

Customer ID:

Customer PO:

Date Received:

SREC85

018013

05/08/2018

Attn: Alex Green

S&R Environmental Consulting, Inc

5801 Logan Street, #200

Denver, CO 80216

EPA – Floor 3 - Clearance EMSL Project ID:

Report Date: 05/09/2018 Date Analyzed: 05/08/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m³)	Reporting Limit (µg/m³)
281802057-0001	3-CL-4PCH	24	< 0.030	<1.3	<1.3
Desorption Blank	-	0	< 0.030	ND	NA

Notes:

- 1. Samples were received in acceptable condition unless otherwise noted.
- 2. These results relate only to the samples tested.
- 3. Sample results are not blank corrected unless otherwise noted.
- 4. Discernable field blank(s) submitted with samples if reported above.

TC/VK/VMD

Analyst

Scott VanEtten, CIH- Lab Manager Or other approved signatory



Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only):

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 858-3502

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(3) Sp11+										comments:
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12:00 0:21		()				1/8	1/5		MI	P
, Date		5		Received By	Ret	Date				Released By
plicates.	oper number of field blanks and duplicates.	number of field	t the proper r	It is the IH field sampler's responsibility to submit the pro	's responsit	id sampler	It is the IH fie.		Note: Most NIOSH and OSHA methods require field blanks.	Note: Most NIOS
50		Area Personal								
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7		☐ Area ☐ Personal					88			
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HIN EWE		Area Personal	24 L				"	2616 H501K	4	3-CL-FORM
		Area Personal	24 L				4160			3-CL-4RH
10Z 1	5/7/18	Area Personal	2472				7.140		3 rd Moor	3-CL-PMIO
Comments	Sample Date	Sample Type	Volume / Area	Sample Time On Off	Samp	(lpm)	Media	Analyte / Method	Location/Description	Client Sample ID
Lot#:	er/Part #	Manufacturer/Part #:	l Lab)	Other (Call Lab)	Day [1 Day	☐2 Day	З Дау	☐1 Week ☐4 Day	2 Week
10gr 164 >		Media Type:	Apply	ek TAT Will	ard 2 Wee	de, Standa	ection Mac	heck: If No Se	Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply	Turnaround
Em	e):/	Sampled By (Signature):-	Sampled	18013	Purchase Order: 0/8 0/3	Purchase	t:5/7/18	Date of Shipment:5/	8	# Samples in Shipment:
U.S. State where Samples Collected:	U.S. State when	Com Com	Monmental	Email Results To: alex@Ssenvionmental	sults To: 4	Email Re		Cleafances	Project Name: EPA - Floor 3 -	Project Name:
	Fax:	٦.		ne:	Phone				Jo] - 548-1175 Fax:	Phone: 3-3
Zip/Postal Code:	nce:	State/Province:			City:	e: 80212	Zip/Postal Code: 802/2			city: Se nues
				et:	Street:	122	1	C	Loga, St.	Street: 580
				Attention To:	Atter		154/+7-1	ental Consu	SER ENVIR	Company Name:
Client ID #:	C	SAME		Bill To Company:	Bill 1			Gre,	Alex	Report To Contact Name:

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Proj:

EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID: Customer ID: Customer PO:

281802058 SREC85 018013

Project ID:

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200

Denver, CO 80216

Phone: Fax:

(303) 297-1645 (303) 297-1646

Collected:

Received: 5/08/2018 Analyzed: 5/08/2018

EPA - Floor 3 - Clearances

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

	Sample ID	Identification	Volume	Sample Weight	Sample Co	ncentration	Reporting Limit
	3-CL-FORM 31802058-0001	3rd Floor	24 L	0.38 μg	0.016 mg/m³	0.013 ppm	0.0021 mg/m³
Media	a Blank		N/A	<0.050 μg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)

Thomas Cancglin

SWVayW

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 05/09/2018 12:58:45

- 1. Samples were received in acceptable condition unless otherwise noted
- These results relate only to the samples tested.
 Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
- 4. A discernable Field Blank was submitted if listed above as a discrete sample

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

Controlled Document - Industrial Hygiene COC - R4 - 9/8/2015

Page

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Industrial Hygiene

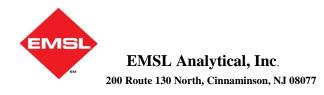
Chain of Custody

EMSL Order Number (Lab Use Only):

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 858-3502

LABORATORY-PRODUCTS-TRA	AINING		200	00000	2000		L			1 88: (000) 000-0002	7000
Report To Contact Name:	Alex	Gre.			ВіІІ То	Bill To Company:	YS	ME		Client ID #:	
Company Name:	54/2 ENVIONMENTAL	ental Consu	54/+700		Attent	Attention To:					
Street: 580	Logar St.	C	1		Street:						
City: Denves	State/Province:		Zip/Postal Code: 80212	80212	City:			State/Province:	nce:	Zip/Postal Code:	
Phone: 3-1 -	548-				Phone:			_	Fax:		
Name:	EPA - Floor 3 -	Cleafances	•	Email Res	ults To: al	Email Results To: alex@Ssenvigoneats	Connectal	Com Iting	J.S. State wh	U.S. State where Samples Collected:	0
# Samples in Shipment:	8	Date of Shipment:5	1/18	Purchase	Purchase Order: 0/80/3	80/3	Sampled	Sampled By (Signature):-	J. A.	h	
Turnarounc	Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will Apply	heck: If No Se	lection Mad	e, Standa	rd 2 Week	TAT WIII	Apply	Media Type:		106r7645	
2 Week	1 Week 4 Day	□3 Дау	2 Day	1 Day	ау	Other (Call Lab)	Lab)	Manufacturer/Part #:	er/Part #:	Lot #:	
Client Sample ID	Location/Description	Analyte / Method	Media	Flow (lpm)	Sample Time On Off	Time Off	Volume / Area	Sample Type	Sample Date	Comments	p)
3-CL-PMIO	3. A Moor	EPAIP JOA	F.1+0				2472	Area Personal	5/1/18	107	
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Note: Most NIOS Released By	Note: Most NIOSH and OSHA methods require field blanks. Released By		It is the IH field sampler's responsibility to submit the pro	Id sampler's Date	responsibil	Received By	the proper r	per number of field blanks and duplicates.	blanks and c	duplicates. Date	
Poly	m the		1/5	1/8				CF.		8 8 9	9:26
Comments:					-						
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EMSL Order ID: 491800426

Attn: Alex Green Customer ID: SREC85

S&R Environmental Consulting

5801 Logan Street #200 Date Received: 5/8/2018

Denver CO 80216

Project: EPA 3rd Floor

Report Date: 5/9/2018 Data Analyzed: 5/8/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800426-1	3-CL-TO15	Carbon dioxide	240	550
		Carbon monoxide	6.1	<6.1

T. Peters	Marge Howley
Analyst	Lab Manager



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800426**Customer ID: **SREC85**Customer PO: **18013**

Attn: Alex Green

Project: EPA 3rd Floor

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645**

Fax: **303-297-1646**

Date Collected: **5/7/2018**Date Received: **5/8/2018**

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800426-0001	3-CL-TO15	5/7/2018	8:10 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date: 5/9/2018

Report Revision R0 Revision Comments
Initial Report

Marjorie Howley, Laboratory Manager

Majour Howley

or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

NJDEP Certification #: 03036



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800426
EMSL Sample #: 491800426-1
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 5/7/2018
Date Received: 5/8/2018

Project: EPA 3rd Floor

Sample ID: 3-CL-T015

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/08/2018	TP	K15750.D	E0266	305 cc	1
Dilution1	05/08/2018	TP	K15753.D	E0266	31 cc	10

Target Compound Results Summary

	<u> </u>	1	Result	RL	1	Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	1.0	0.50		2.1	1.0	
n-Butane	106-97-8	58.12	6.6	0.50		16	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	21	0.50		40	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	0.54	0.50		3.1	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.1	0.50		10	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	7.6	0.50		18	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	150	5.0	D	240	8.4	Reported Dilution #1
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	0.82	0.50		2.8	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.77	0.50		2.7	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.67	0.50		2.0	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	2.0	0.50		7.3	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	0.72	0.50		2.9	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	0.53	0.50		1.7	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800426 491800426-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: 303-297-1645

Fax: 303-297-1646 5/7/2018 Date Collected: 5/8/2018 Date Received:

Project: EPA 3rd Floor Sample ID: 3-CL-TO15

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	05/08/2018	TP	K15750.D	E0266	305 cc	1
Dilution1	05/08/2018	TP	K15753.D	E0266	31 cc	10

Target Compound Results Summary

	212"		Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	1.6	0.50		5.9	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			200	ppbv		350	ug/m3	

Result **Spike** Surrogate Recovery 10 10 100% 4-Bromofluorobenzene

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800426
EMSL Sample #: 491800426-1
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 5/7/2018
Date Received: 5/8/2018

Project: **EPA 3rd Floor** Sample ID: 3-CL-T015

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	05/08/2018	TP	K15750.D	E0266	305 cc	1
Dilution1	05/08/2018	TP	K15753.D	E0266	31 cc	10

Tentatively Identified Compound Results Summary

Tentatively identified Compound Results Summary									
			Result		Result	Retention			
Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments		
unknown		92	2.0	JN	7.6	5.51			
Butane, 2-methyl-	000078-78-4	72	3.0	JN	9.0	8.07			
Pentane	000109-66-0	72	2.6	JN	7.6	9.01			
	Total TIC Conce	entrations:	7.6	ppbv	24	ug/m3			

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- $\label{eq:N=Presumptive} \mbox{N= Presumptive evidence of compound based on library match}.$

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800426 491800426-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Sample ID: 3-CL-TO15

Alex Green

Phone: 303-297-1645 S&R Environmental Consulting, Inc. Fax: 303-297-1646 5801 Logan Street, #200 Date Collected: 5/7/2018 **Denver, CO 80216** 5/8/2018 Date Received:

Project: EPA 3rd Floor

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	05/08/2018	TP	K15750.D	E0266	305 cc	1
Dilution1	05/08/2018	TP	K15753.D	E0266	31 cc	10

Total Volatile Organic Compounds (TVOC) Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Chloromethane	74-87-3	50.49	1.0	0.50		2.1	1.0	
n-Butane	106-97-8	58.12	6.6	0.50		16	1.2	
Ethanol	64-17-5	46.07	21	0.50		40	0.94	
Freon 11(Trichlorofluoromethane)	75-69-4	137.40	0.54	0.50		3.1	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.1	0.50		10	1.2	
Acetone	67-64-1	58.08	7.6	0.50		18	1.2	
Acetonitrile	75-05-8	41.00	150	5.0	D	240	8.4	Reported Dilution #1
Methylene chloride	75-09-2	84.94	0.82	0.50		2.8	1.7	
n-Hexane	110-54-3	86.17	0.77	0.50		2.7	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.67	0.50		2.0	1.5	
Ethyl acetate	141-78-6	88.10	2.0	0.50		7.3	1.8	
n-Heptane	142-82-5	100.20	0.72	0.50		2.9	2.0	
Benzene	71-43-2	78.11	0.53	0.50		1.7	1.6	
Toluene	108-88-3	92.14	1.6	0.50		5.9	1.9	
Total Target Co	mpound Conce	entrations:	200	ppbv		350	ug/m3	

Qualifier Definitions

- B = Compound also found in method blank.
- E= Estimated concentration exceeding upper calibration range.
- D= Result reported from diluted analysis.

			Result			Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv		q	ug/m3	Time	Comments
unknown		92	2.0		JN	7.6	5.51	
Butane, 2-methyl-	000078-78-4	72	3.0		JN	9.0	8.07	
Pentane	000109-66-0	72	2.6		JN	7.6	9.01	
	Total TIC Conce	ntrations:	7.6	ppbv		24	ug/m3	

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs):	: 210 ppbv	370 ug/m3
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USEPA TO-15

External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc. 200 Route 130 North Cinnaminson, NJ 08077 Ph. (800) 220-3675 Fax (856) 786-0327

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Controlled Document - COC-50 TO-15 Cirmaminson R7.1 2017,07.26

Page _ of _

491800426

TO-FM-12 Sample Information Revision 9 Effective Date: January 22, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Contact Person: Name:	Company:	()
Additional E-mails: Telephone #: 307 - 548 - 1/75	SAR Environmental (0.55/ting
Email: a Commended to provide you with all available information for finding that Information for your sample. Sample Type: Indoor Air Quality (Home/Office) Indoor Air Quali	Contact Person:	
Additional E-mails: Telephone #: 307 - 548 - 1/75	Name: Alex Green	
Library Search requested: VYES [] NO All brary search (ako Tentatively Identified Compounds) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information fo your sample. Indoor Air Quality (Home/Office)	E-mail: a/ex @ STENV?ronMen	talconshiting.com
Library Search requested: Test No	Additional E-mails:	<u> </u>
A library search (ako Tentotively Identified Compounds) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information fo your sample. Sample Type: Indoor Air Quality (Home/Office)	Telephone #: 307 - 548-1175	
Indoor Air Quality (Home/Office) JAQ (Industrial) JOther: Sample Description:	A library search (aka Tentatively Identified Compounds) will identify up to compounds. If you are performing an Indoor Air Quality or odor investigations sample.	to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74
PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regular ory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive. Possible Fig. Po	Indoor Air Quality (Home/Office)	[] Soil Gas/Sub Slab
PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regular ory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive. Possible Fig. Po	Sample Description:	
EPA RSLs - 11/2017 Residential Industrial TVOC (Library Search Required for this format)	PLEASE NOTE: The result forms we provide will not indicate whether agency. If you would like that information, please check off below whi	your results have exceeded any Exposure Limit criteria established by any regularory
[] NJ DEP 1/2018 - Circle one: VI-Indoor AQ VI-Soil Gas [] Ohio 4/2013 - Circle one: Residential Commercial Commercial Non-residential Non-residential [] Indiana Dept Env Mgmt Screeening Levels 3/2016 [] PA DEP - 11/2016 Indoor Air [] Vermont DEP IROCP 4/2012 (soil gas only) [] PA DEP - 11/2016. Sub Slab Soil Gas OR Near Source Soil Gas [] California OEHHA 2/2012 [] Other; these are the compounds I want reported: Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory. US EPA TO-3 via GC/FiD (choose one below): ASTM-D5504 via GC/SCD (choose one below): [] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS) [] Methane only [] H ₂ S only [] H ₂ S only [] Note: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report. We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contal parager CMS Analyser: [] NH ₃ [] O2 [] Water Vapor	SHA PELS/NIOSH RELS combined form	[] Potential Sources of Compounds found in your IAQ sample
[] NJ DEP 1/2018 - Circle one: VI-Indoor AQ VI-Soil Gas [] Ohio 4/2013 - Circle one: Residential Commercial Commercial Non-residential Non-residential [] Indiana Dept Env Mgmt Screeening Levels 3/2016 [] PA DEP - 11/2016	PA RSLs - 11/2017 Residential Industrial	TVOC (Library Search Required for this format)
[] PA DEP-11/2016	[] NJ DEP 1/2018 - Circle one: VI-Indoor AQ VI-Soil Gas	[] Ohio 4/2013 -Circle one: Residential Commercial
[] PA DEP-11/2016	[] NC DENR 4/2014 - Circle one: Residential Non-resident	tial [] Indiana Dept Env Mgmt Screeening Levels 3/2016
[] CA HHSL 11/2004-Circle one: Indoor Air Soil Gas [] Other; these are the compounds I want reported: Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory. US EPA TO-3 via GC/FID (choose one below): ASTM-D5504 via GC/SCD (choose one below): [] C ₁ -C ₆ hydrocarbons [] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS) [] Methane only *Note: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report. We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAC/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please conta your sales rep for the proper media. Please note: There is an additional charge for any of the tests below. Draeger CMS Analyzer: CO	[] PA DEP - 11/2016 Indoor Air	[] Vermont DEP IROCP 4/2012 (soil gas only)
Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory. US EPA TO-3 via GC/FID (choose one below): ASTM-D5504 via GC/SCD (choose one below): [] C ₁ -C ₆ hydrocarbons [] Methane only [] H ₂ S only *NOTE: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report. We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contayour sales rep for the proper media. Please note: There is an additional charge for any of the tests below. Draeger CMS Analyser: [] INH ₃ [] IO2 [] IWater Vapor Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure	[] PA DEP- 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas	[] California OEHHA 2/2012
Cinnaminson NJ Laboratory. US EPA TO-3 via GC/FID (choose one below): [] C ₁ -C ₆ hydrocarbons [] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS) [] Methane only *Note: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report. We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contayour sales rep for the proper media. Please note: There is an additional charge for any of the tests below. Oranger CMS Analyzer: CO	[] CA HHSL 11/2004 -Circle one: Indoor Air Soil Gas	[] Other; these are the compounds I want reported:
[] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS) [] Methane only *Note: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report. We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contayour sales rep for the proper media. Please note: There is an additional charge for any of the tests below. Draeger CMS Analyzer: CO		EPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the
*Note: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon on Friday. Analysis performed out of hold time will have a notation in the report. We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contaryour sales rep for the proper media. Please note: There is an additional charge for any of the tests below. Draeger CMS Analyzer: CO	US EPA TO-3 via GC/FID (choose one below):	ASTM-D5504 via GC/SCD (choose one below):
on Friday. Analysis performed out of hold time will have a notation in the report. We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please contayour sales rep for the proper media. Please note: There is an additional charge for any of the tests below. Draeger CMS Analyzer: LCO		• •
IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please conta your sales rep for the proper media. Please note: There is an additional charge for any of the tests below. Draeger CMS Analyzer: CO		
Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure	IAQ/Screening purposes ONLY. EMSL recommends alternate field sam	npling techniques for these parameters (with the exception of water vapor); please contact
Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure	Draeger CMS Analyzer: LCO LCO ₂ []NH ₃ []O2 []Water Vapor	
your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your	Sample Retention Policy: All canisters are guaranteed to be retained j	for one day after results are reported. Please review your results promptly to ensure



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: wohl-lab.org

ALEX GREEN
S & R ENVIRONMENTAL CONSULTING
STE 200
5801 LOGAN ST
DENVER, CO 80216

Lab Workorder ID 380118

Visit/Project ID EPA - 4TH FLOOR CLEAR

PO 018013 **Received** May 8, 2018

Reported May 10, 2018 **Report ID** 5252990

Previous Report IDs

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on May 8, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Page 1 of 2 Report ID: 5252990



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: www.wohl-lab.org

Final Report

Lab ID: 380118001 Sample ID: 3-CL-CAP Media: OVS-7 TUBE

Sampling Date: 5/7/2018 Matrix: Air Sampled Time:

								RESULT	
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	5/9/2018	101 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter ug = micrograms ppb or ppbv = parts per billion ng = nanograms

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

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Page 2 of 2 Report ID: 5252990



EMSL Analytical - Industrial Hygiene

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

http://www.EMSL.com Industri

IndustrialHygienelab@emsl.com

 EMSL Order:
 281802204

 CustomerID:
 SREC85

 CustomerPO:
 CC-031615

ProjectID:

Alex Green
S&R Environmental Consulting, Inc.
5801 Logan Street, #200
Denver, CO 80216

Phone: (303) 297-1645 Fax: (303) 297-1646 Received: 05/15/18 10:50 AM

Analysis Date: 5/16/2018 Collected: 5/14/2018

Test Report: PM10 Analysis of Particulate Matter Performed by EPA Reference Method 40 CFR, Chapter I, Part 50, App. J

Sample	Location	Volume (L)	Initial Weight (mg)	Final Weight (mg)	Sample Weight (mg)	Concentration (µg/m³)	Reporting Limit (µg/m³)	Notes
18-0613	3rd Floor	2568	54.212	56.474	2.3	900	0.78	
281802204-000	01							
18-0630	4th Floor	2432	59.842	60.258	0.42	170	0.82	
281802204-000	02							

Notes: Discernable field blank not submitted with samples.

Results are not field blank corrected.

Analyst(s)
Thomas Cancglin (2)

Scott Van Etten, CIH, Laboratory Manager or other approved signatory

1

The laboratory is not responsible for data reported in mg/m3, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. This report may not be reproduced, except in full, without written approval by EMSL. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ

Initial report from 05/16/2018 14:57:25



ompany:		

Chain of Custo Form v.2101208 HMC #

014987

Notes

Job Number: 018013 Job Name: EPA/Boots	Collector: Tom Ziegler Email: see notes	107
Date Collected: 5-14-18	Notes: tom@srenvironmentalconsulting.com	
Mobile: 7203174259		

Analysis Type

Volume

TAT

Sample Name

	Sample
WZ	2263151
1/	2263129
V	2263150

Sample #

2263151	31	rd Floor	Р	75.4 L	24			
2263129	41	th Floor	Р	75.75 L	24			
2263150	E	intrance Main Lobby	Р	76.0 L	24			
					11			
	-							
					TANKIN .			
Analysi	is Type	Description	TAT		Acceptable	Sample Types		
Spore Trap	S	Identification & Enumeration of Fungal Spores	24 Hour	Spore Trap cass	settes, Impact slides			
	S+	I & E of Fungal Spores + total dander, fiber and pollen count	24 Hour	Spore Trap cass	settes, Impact slides			
Direct ID	D	ID and Semi-quantative enumeration of spores and mycelium	24 Hour	Tape, Bio-tape,	swab, bulk, agar plate fo	r ID only		
	D+	ID and Enumeration with spores count	24 Hour	Tape, Bio-tape,	swab, bulk, agar plate fo	r ID only		
Culture	C1	Identification & Enumeration of Mold only	7 Day	Anderson Air Pla	ate, Swab, Bulk			
	C2	Identification & Enumeration of Bacteria only	4 Day	Anderson Air Pla	ate, Swab, Bulk			
	C3	Identification & Enumeration of Mold and Bacteria	7 Day	Anderson Air Pla	ate, Swab, Bulk			
	C5	Coliform Screen for Sewage Bacteria	2 Day	Anderson Air Pla	ate, Swab, Bulk	100		
		Semi-quantative analysis of dust mite allergen	24 Hour	. Bulk Dust				
Dust Mite	A1			Spore Trap cassettes, Impact slides, Bio-Tape				
	A1 P	Total Particulate Analysis	24 Hour	Spore Trap case	settes, Impact slides, Bio-	-Tape		

HMC #18014987



contact@hayesmicrobial.com http://hayesmicrobial.com/

Analysis Report prepared for

S&R Environmental Consulting

5801 Logan St. Suite 200 Denver, CO. 80216 Phone: (303) 297-1645

Job Number: 018013 Job Name: EPA/Boots Date Sampled: 05-14-2018

Date Analyzed: 05-15-2018
Report Date: 05-15-2018

EPA Laboratory ID# VA01419







AIHA EMPAT Lab ID# 188863

Mold License: LAB1021

License: #PH-0198





S&R Environmental Consulting 5801 Logan St. Suite 200 Denver, CO 80216

May 15, 2018

Client Job Number: 018013 Client Job Name: EPA/Boots

Dear S&R Environmental Consulting,

We would like to thank you for trusting Hayes Microbial for your analytical needs. On May 15, 2018 we received 3 samples by FedEx for the job referenced above. 3 samples were received in good condition.

The results in this analysis pertain only to this job, collected on the stated date and should not be used in the interpretation of any other job. This report may not be duplicated, except in full, without the written consent of Hayes Microbial Consulting, LLC.

This laboratory bears no responsibility for sample collection activities, analytical method limitations, or your use of the test results. Interpretation and use of test results are your responsibility. Any reference to health effects or interpretation of mold levels is strictly the opinion of Hayes Microbial Consulting. In no event, shall Hayes Microbial Consulting or any of its employees be liable for lost profits or any special, incidental or consequential damages arising out of your use of the test results.

Steve Hayes, BSMT(ASCP)

Laboratory Director

Hayes Microbial Consulting, LLC

Stephen N. Hoyes



Particle Analysis
SOP #HMC114

HMC #18014987

Job Number: 018013				Job Na	me: EPA/B e	oots			I	Date Co	llected:	05/14/2018	
Collected by: Tom									ı	Date Re	eceived:	05/15/2018	
Email: tom@sre	environmenta	alconsulting.co	om						I	Date Re	ported:	05/15/2018	
HMC ID Number		18014987 - 1		•	18014987 - 2			18014987 - 3					
Sample ID#		2263151			2263129			2263150					
Sample Name		3rd Floor			4th Floor		En	trance Main Lobby					
Sample Volume		75 liters			75 liters			76 liters					
Reporting Limit	13	Particles / m3		13	Particles / m3		13	Particles / m3					
Particle	Raw Count	Count / m3	% of Total	Raw Count	Count / m3	% of Total	Raw Count	Count / m3	% of Total				
Dander	240	3183	35.8%	60	792	50.4%	130	1711	73.19	%			
Cellulose Fibers	6	80	< 1%	3	40	2.5%	2	26	1.19	%			
Synthetic Fibers	1	13	< 1%				1	13	< 19	%			
Fiberglass Fibers													
Wood Fibers	1	13	< 1%										
Animal Hair													
Plant Hair													
Human Hair													
Dust Mites, Parts													
Carpet Beetle larvae parts													
Insect Parts													
Insect Frass (Feces)													
Feather Barbule													
Pollen													
Gypsum													
Opaque Particles													
Talc	420	5570	62.6%	55	726	46.2%	35	461	19.7%	%			
Silicates	3	40	< 1%	1	13	< 1%	2	26	1.19	%			
Mineral Salts													
Ash-like Soot							5	66	2.8%	%			
Char-like Soot							1	13	< 19	%			
Aciniform-like Soot							2	26	1.19	%			
Total	671	8899		119	1571		178	2342					

	D. D.					Starland 17 1	16		
Signature:	1. Ka	mexis	Date:	05/15/2018	Reviewed by:	steptien 11. F	ages	Date:	05/15/2018



HMC #18014987

Particle Analysis

Hayes Microbial Consulting Particle Analysis test is based on the initial screening procedures from ASTM #D6602. HMC only does light, polarized light, and phase contrast microscopy. No SEM or X-ray defraction is done. Below are some guidelines to help you figure out the totals for the dander, fibers, pollen, and other particle counts by light microscopy.

*Estimated Normal Ranges are based on experience only. There are no standard ranges for this type of testing.

Particle		* Estimated N	ormal Range
		Air	Surface
Dander	Home (Carpeted Areas)	1,000-6,000 / M3	10,000-16,000 / cm2
	Home (Hard Surface Areas)	500-5,000 / M3	5,000-16,000 / cm2
	Office or Classroom (Carpeted)	4,000-12,000 / M3	14,000-24,000 / cm ²
	Office or Classroom (Hard Surface Areas)	3,000-10,000 / M3	12,000-20,000 / cm ²
Cellulose Fibers		0-250 / M3	0-1,600 / cm2
Synthetic Fibers		0-250 / M3	0-1,600 / cm2
Fiberglass Fibers		0-60 / M3	0-400 / cm2
Gypsum Fibers		0-400 / M3	0-1,800 / cm2
Talc		0-250 / M3	0-2,000 / cm2
Dust Mites (parts)		0-30 / M3	0-200 / cm2
Insect Parts		0-30 / M3	0-200 / cm2
Animal Hair		0-30 / M3	0-200 / cm2
Wood Fibers		0-60 / M3	0-200 / cm2
Plant Hairs		0-60 / M3	0-200 / cm2
Human Hair		0-60 / M3	0-200 / cm2
Carpet Beetle Larvae		0-40 / M3	0-200 / cm2
Insect Frass		0-40 / M3	0-400 / cm2
Feather Barbules		0-40 / M3	0-200 / cm2
Opaque Particles		0-100 / M3	0-600 / cm2
Starch		0-40 / M3	0-200 / cm2
Ash-like Soot		0-60 / M3	0-400 / cm2
Char-like Soot		0-60 / M3	0-200 / cm2
Aciniform-like Soot		0-100 / M3	0-800 / cm2
Silicates	(Varies greatly depending on area)	0-500 / M3	0-2,800 / cm2
Pollen	Varies with outdoor pollen levels and whether there are live indoor plants.		
		M3 = per cubic meter	cm2 = per sq. centimete



HMC #18014987

Aciniform-like Soot

Description: Also known as black carbon, aciniform soot comes from the combustion of oil based or hydrocarbon containing materials. This type of soot

should not be confused with Carbon Black, which is a manufactured product that has been used in commerce for over a century and consists

of a fine black powder of nearly pure elemental carbon.

Sources: Sources are from the combustion of waste oil, fuel oil, gasoline fuel, diesel fuel, coal, coal-tar pitch, oil shale, rubber, plastics and resins,

natural gas fireplaces and stoves, candles etc.

Ash-like Soot

Description: Ash-like soot is formed from the combustion of wood products.

Sources: Sources are wood fireplaces, house fires, forest fires, and burning of leaves and other yard debris.

Cellulose Fibers

Description: Cellulose fibers are natural fibers from plant material.

Sources: Sources of cellulose fibers are paper, cardboard, insulation material.

Char-like Soot

Description: Char-like soot comes from the incomplete combustion of wood products.

Sources: Sources are wood fireplaces, house fires, forest fires, and burning of leaves and other yard debris.

Dander

Description: Dander is dead skin cells. The average person sheds about 600,000 skin cells per day.

Sources: Sources are people and animals.

Silicates

Description: Silicates comprise the majority of the Earth's crust. Sand, Portland cement, and thousands of minerals are examples of silicates.

Sources: Sources are sand and cement.

Synthetic Fibers

Description: Synthetic fibers are man-made fibers such as nylon, polyester, and polyolefin.

Sources: Sources of synthetic fibers are carpet, upholstery and clothing.

Talc

Description: Talc is a mineral composed of hydrated magnesium silicate

Sources: Sources of talc are powder, personal hygiene and cosmetics products, and in powdered laundry detergents and carpet cleaners.

Particle Descriptions

HMC #18014987

Wood Fibers

Description: Fibers from woody plants, trees, and lumber.

Sources: Wood and wood products.



EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281803015

Attn: Alex Green Customer ID: SREC85

S&R Environmental Consulting, Inc. Customer PO: 018013 5801 Logan Street, #200 Date Received: 07/06/18

Denver, CO 80216

Phone: (303) 297-1645 EMSL Order: 281803015

Project: EPA – Floor 5 – Clerarance EMSL Project ID:

Report Date: 07/09/18 Date Analyzed: 07/06/18

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m³)	Reporting Limit (µg/m³)
281803015-0001	5-CL-4PCH	24	< 0.030	<1.3	1.3
Desorption Blank	-	0	< 0.030	ND	NA

Notes:

- 1. Samples were received in acceptable condition unless otherwise noted.
- 2. These results relate only to the samples tested.
- 3. Sample results are not blank corrected unless otherwise noted.
- 4. Discernable field blank(s) submitted with samples if reported above.

AS/VMD

Analyst

Scott VanEtten, CIH- Lab Manager Or other approved signatory "alked Druggere a bee street egyptens (Qn = 1 a

SUSSING

Comments:

Released By



Chain of Custody EMSL Order Number (Lab Use Only)	Hygiene Sustody (Lab Use Only):		EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077
= 2818030 T	03015		PHONE: (800) 220-3675 FAX: (856) 858-3502
Report To Contact Name: Mex Green	Bill To Company:		Client ID #:
Company Name: SER Environma & Consulting	Attention To:	7	
Street: 5801 Logan St. 4200	Street:		
City: De 1145 State/Province: CO Zip/Postal Code: 802/6	City:	State/Province:	Zip/Postal Code:
Phone: 307 - 5 48 - 1/75 Fax:	Phone:	Fax:	
Project Name: EPA - Floor 5 - Clearance, Email Resul	Email Results To: + 10x (05 Fenv: 500 M PAF)		U.S. State where Samples Collected:
# Samples in Shipment 2 AT Date of Shipment: 7/6 //8 Purchase O	8 Purchase Order: 0/8 0/3 Sampled	Signatur	na

5-CL-FORM

-CL-4PCH

Sample ID

Location/Description

Analyte / Method

Media

(lpm)

On O

2

/ Area Volume

Sample Type

Sample Date

Comments

Sample Time

Client

2 Week

1 Week

4 Day

☐3 Day

Day

1 Day Other (Call Lab)

Manufacturer/Part #: Media Type:

Lot #:

V& 57063

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID: Customer ID: Customer PO:

281803016 SREC85 018013

Project ID:

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200

Denver, CO 80216

Phone: Fax:

(303) 297-1645 (303) 297-1646

Collected:

Received: 7/06/2018 Analyzed: 7/06/2018

Proj: EPA - Floor 5 - Clearance

Test Report: Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Co	ncentration	Reporting Limit
5-CL-FORM		24 L	0.26 μg	0.011 mg/m³	0.0087 ppm	0.0021 mg/m³
281803016-0001						
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)

Alicia Shafer

Scott Van Etten, CIH, Laboratory Manager

SWVayW

Any questions please contact Scott VanEtten.

Initial report from: 07/09/2018 09:27:19

- 1. Samples were received in acceptable condition unless otherwise noted.
- These results relate only to the samples tested.
 Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
- 4. A discernable Field Blank was submitted if listed above as a discrete sample

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

Industrial Hygiene Chain of Custody EMSL Order Number (Lab Use Only): -281803016

ö	E	1	2	20
CAL, IN	O NOR	1J 0807	20-367	58-35
NALYTI	UTE 13	ISON. N	(800)2	EAY: (856) 858-3502
EMSL ANALYTICAL, INC	200 ROUTE 130 NORTH	INNAMINSON, NJ 08077	PHONE: (800) 220-3675	- XV
ш		O	α.	

	4											
Report To Contact Name:	ntact Name: Mex	- 1	Green			Bill To (Bill To Company:	5/11	\		Client ID #:	
Company Name:	SFR	Environment	14 KI (6036	4 (47.2		Attention To:	n To:	SHIM	2			
Street: 580	301 609.00	ば	# 200	7		Street:						
City: DEAVES	State	State/Province: (Zip/Postal Code:	B0216	City:		_	State/Province:	ince:	Zip/Postal Code:	de:
Phone: 307	Phone: 301 - 5 48 - 1/75 Fax:	75 Fax:				Phone:				Fax:		
Project Name: ZPA	- EPA - Floor	1	Clearance	6	Email Res	Email Results To: 4 / EX (0) S [EAV : FO A M P A F	KØSTERN	FORMPA	1	U.S. State who	U.S. State where Samples Collected:	acted:
# Samples in Shipment	\ V		Date of Shipment:	t= 7/6/18	Purchase	Purchase Order: 0/8 013	610	Sampled	Signatur	(e):	de	
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2 Week	1 Week	☐4 Day	☐3 Da	Day	1 Day)ay 0	Other (Call Lab)	Lab)	Manufacturer/Part #:	rer/Part #:	Lot #:	#
Client Sample ID	Location/Description	cription	Analyte / Method	Media	Flow (lpm)	Sample Time	ime Off	Volume /	Sample	Sample	Comments	ents
			Part D	A WILL			5	1	A Area			
5-CL-4PCH			05HA -	Sorbet tibe				7 42	A Area	2/8/18		
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Note: Most NIC	Note: Most NIOSH and OSHA methods require field blanks.	thods requ	ire field blanks.	4 1	d sampler's	s responsibilit	y to submit	the proper i	number of fie	It is the IH field sampler's responsibility to submit the proper number of field blanks and duplicates.		
Keleased By		The state of the s	1	2/6	Date	Recei	Received By	-		0101	1	Date
				1	0/	1	A	2		0101	1	8// 0
Comments:				`								(7)
Cordination December 2	Portuging Decreases and a second analysis of Conference (2000)	13		Page	*c	pages						



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800613**Customer ID: **SREC85**Customer PO: **18013**

Attn: Alex Green

Project: EPA - 5th Floor

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 7/5/2018

Date Received: 7/6/2018

Laboratory Report- Sample Summary

Ī	EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
Ī	491800613-0001	5-CL-TO15	7/5/2018	9:30 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date: 7/9/2018

491800613-1_R0

Report Revision R0 Revision Comments
Initial Report

Marjorie Howley, Laboratory Manager

Majour Howley

or other approved signatory

Test results meet all NELAP requirements unless otherwise specified. NJDEP Certification #: 03036

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

V112



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: **491800613**Customer ID: **SREC85**Customer PO: **18013**

Attn: Alex Green

Project: EPA - 5th Floor

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 7/5/2018

Date Received: 7/6/2018

Laboratory Conformance/ Non-Conformance Summary

For the following Samples: 491800613-0001

Samples met criteria as listed unless otherwise noted.

Sample Pressures/ Vacuums - Samples were received within acceptable range

Holding Times (30 days) - Samples were analyzed within holding times.

BFB Tune- Samples were analyzed within 24 hours of an acceptable instrument tuning standard.

Surrogate Recoveries - Samples met surrogate recovery criteria.

Internal Standards - Samples met internal standard area/retention time criteria.

<u>Initial Calibration</u> Initial Calibration criteria met method specification.

<u>Initial Calibration Verification Standard (ICVS)-Second Source</u>- ICVS met method specification with all compounds within 30% deviation. Individual compounds outside the method specification may be listed below.

Continuing Calibration Verification Standard (CCVS)- CCVS met method specification with all compounds within 30% deviation with the following exceptions: Chloromethane, Vinyl chloride and Chloroethane. Of these compounds only chloromethane was found in this sample; the results for this compound may be biased high.

Ending Calibration Verification Standard (ECVS)- ECVS met method specification with all compounds within 30% deviation with the following exceptions: Propene, Freons 12 and 114, Chloromethane, Butane, Vinyl Chloride, 1,3-Butadiene, Bromomethane and Chloroethane. Of these compounds Chloromethane and Butane were found in this sample; the results for this compound in the sample may be biased high.

Method Blanks (MB)- Method Blank met method specification with no compounds reported.

Instrument Blanks (IB)- No Instrument Blanks were analyzed.

Reporting Limit Laboratory Control Samples (RLLCS)- RLLCS did not meet method specification with 90% of compounds within the 60-140% recovery range. Individual compounds outside of the recovery range may be listed below. The same compounds failed high in the RLLCS as in the ECVS causing <90% of compounds not meeting criteria.

Additional Comments:

The following data qualifiers that may have been reported with the data,

- ND- Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.
- **U-** Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.
- J- Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed.
- **B** Compound found in associated method blank as well as in the sample.
- E- Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.
- **D** Compound reported from additional diluted analysis.
- N- indicates presumptive evidence of a compound based on library search match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

Marjorie Howley, Laboratory Manager or other approved signatory

Majour Howley



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800613
EMSL Sample #: 491800613-1
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 7/5/2018
Date Received: 7/6/2018

Project: **EPA - 5th Floor** Sample ID: 5-CL-T015

 Analysis
 Analysis Date
 Analyst Init.
 Lab File ID
 Canister ID
 Sample Vol.
 Dil. Factor

 Initial
 07/06/2018
 mth
 P3390.D
 E12323
 298 cc
 1

Target Compound Results Summary

	1		Result	RL	1	Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.81	0.50		1.7	1.0	
n-Butane	106-97-8	58.12	2.5	0.50		5.9	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	64	0.50	Е	120	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.0	0.50		10	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	7.1	0.50		17	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	1.2	0.50		1.9	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	ND	0.50		ND	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.56	0.50		1.6	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	ND	0.50		ND	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50	ļ	ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50	ļ	ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50	ļ	ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50	ļ	ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50	<u> </u>	ND	2.0	



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800613 491800613-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: 303-297-1645

7/6/2018

303-297-1646 Fax: 7/5/2018 Date Collected:

Sample ID: 5-CL-TO15

Date Received:

Project: EPA - 5th Floor

Analysis Analysis Date Analyst Init. Lab File ID Canister ID Sample Vol. Dil. Factor 07/06/2018 Initial mth P3390.D E12323 298 cc

Target Compound Results Summary

			Result	RL	Ĺ	Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	ND	0.50		ND	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concent	rations:		80	ppbv		160	ug/m3	

Result Spike Recovery Surrogate 4-Bromofluorobenzene 9.3 10 93%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800613
EMSL Sample #: 491800613-1
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc. 5801 Logan Street, #200

Denver, CO 80216

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 7/5/2018
Date Received: 7/6/2018

Project: **EPA - 5th Floor** Sample ID: 5-CL-T015

<u>Analysis</u>	<u>Analysis Date</u>	Analyst Init.	<u>Lab File ID</u>	<u>Canister ID</u>	Sample Vol.	<u>Dil. Factor</u>
Initial	07/06/2018	mth	P3390.D	E12323	298 cc	1

Tentatively Identified Compound Results Summary

Ethane, 1,1-difluoro- Unknown 92 2.3 JN 8.7 5.74 Unknown 92 2.0 JN 7.4 7.86		Tentatively identified Compound Results Summary									
Ethane, 1,1-diffuoro- Unknown 92 2.3 JN 8.7 5.74 Unknown 92 2.0 JN 7.4 7.86				Result		Result	Retention				
Unknown 92 2.3 JN 8.7 5.74 Unknown 92 2.0 JN 7.4 7.86	Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments			
Unknown 92 2.3 JN 8.7 5.74 Unknown 92 2.0 JN 7.4 7.86 Image: Control of the property	Ethane, 1,1-difluoro-	000075-37-6	66	1.9	JN	5.0	5.23				
Unknown 92 2.0 JN 7.4 7.86			92	2.3	JN	8.7	5.74				
			92	2.0		7.4	7.86				
Total TIC Concentrations: 6.2 ppbv 21 ug/m3		Total TIC Course		6.2	ppbv	21	ug/m3				

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- $\label{eq:N=Presumptive} \mbox{N= Presumptive evidence of compound based on library match}.$

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800613 491800613-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Phone:

Alex Green

303-297-1645 S&R Environmental Consulting, Inc. Fax: 303-297-1646 5801 Logan Street, #200 Date Collected: 7/5/2018 **Denver, CO 80216** Date Received: 7/6/2018

Project: EPA - 5th Floor

Sample ID: 5-CL-TO15

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	07/06/2018	mth	P3390.D	E12323	298 cc	1

Total Volatile Organic Compounds (TVOC) Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Chloromethane	74-87-3	50.49	0.81	0.50		1.7	1.0	
n-Butane	106-97-8	58.12	2.5	0.50		5.9	1.2	
Ethanol	64-17-5	46.07	64	0.50	Е	120	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	4.0	0.50		10	1.2	
Acetone	67-64-1	58.08	7.1	0.50		17	1.2	
Acetonitrile	75-05-8	41.00	1.2	0.50		1.9	0.84	
2-Butanone(MEK)	78-93-3	72.10	0.56	0.50		1.6	1.5	
Total Targ	et Compound Conce	entrations:	80	ppbv		160	ug/m3	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Tentatively Identified Compounds	CAS#	MW(1)	Result ppbv		Q	Result ug/m3	Retention Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	1.9		JN	5.0	5.23	
Unknown		92	2.3		JN	8.7	5.74	
Unknown		92	2.0		JN	7.4	7.86	
•	Total TIC Conce	ntrations:	6.2	vdqq		21	ug/m3	-

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

			_		
Total Volatile Organic Compounds (TVOCs):	86	ppbv		180	ug/m3

USEPA TO-15

External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc. 200 Route 130 North Cinnaminson, NJ 08077 Ph. (800) 220-3675 Fax (856) 786-0327

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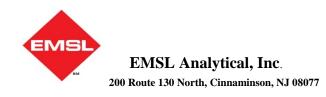
TO-FM-12 Sample Information Revision 9 Effective Date: January 22, 2018

TO-15 Sample information A 9:51

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

requested TAT, and provide you wi	ith neipjui int	erpretation inf	orma	tion.
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Contact Person:				
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Additional E-mails:				
Telephone #: 303 - 29	१३ - ह	39 65		
Library Search requested: A library search (aka Tentatively Identified compounds. If you are performing an ind your sample.	d Compounds) w loor Air Quality (rid identify up to 2] NO 20 of ti lon, th	he largest, non-target peaks that are not part of the standard TO-15 list of 74 elibrary search is recommended to provide you with all available information for
Sample Type:				
Indoor Air Quality (Home/Office IAQ (Industrial) Other: Sample Description:	···			[] Soil Gas/Sub Slab
PLEASE NOTE: The result forms we provagency. If you would like that information	vide will not ind on, please check	icate whether you off below which	ur rest regula	uits have exceeded any Exposure Limit criteria established by any regulatory atory comparison forms you would like to receive.
() OSHA PELS/NIOSH RELS	combined form		()	Potential Sources of Compounds found in your IAQ semple
[] EPA RSLs - 11/2017	Residential	industrial	M	TVOC (Library Search Required for this format)
NJ DEP 1/2018 - Circle one:	VI-Indoor AQ	VI-Soil Gas	(1)	Ohio 4/2013 - Circle one: Residential Commercial
[] NC DENR 4/2014 - Circle one:	Residential	Non-residential	()	Indiana Dept Env Mgmt Screeening Levels 3/2016
PA DEP - 11/2016	indoor Air		()	Vermont DEP IROCP 4/2012 (soli gas only)
[] PA DEP- 11/2016: Sub Slab Soil Gas	OR Near Source S	oil Gas	()	California OEHHA 2/2012
[] CA HHSL 11/2004 -Circle one:	Indoor Air	Soil Gas	[]	Other; these are the compounds I want reported:
Please note: There is an additional charge Cinnaminson NJ Laboratory.	for any of the te	sts below. USEPA	A TO-3	AND ASTM 5504 analyses can be performed from your conister at the
US EPA TO-3 via GC/HD (choose one	below):	AST	TM-D	SSO4 via ac/sca (choose one below): "
[] C ₁ -C ₆ hydrocarbons [] Methane only] Sulfu] H ₂ S c	rr Scan (H ₂ S, COS, MeSH, EtSH, DMS) only
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IAQ/Screening purposes ONLY. EMSL re- your sales rep for the proper media. Pleas	commends alter	nate field samplin	g tech	and Huntington Beach laboratories. Please note these tests are to be used for iniques for these parameters (with the exception of water vapor); please contact any of the tests below.
Dragger CMS Analyzer:	[]02 []	Water Vapor		
Sample Retention Policy: All conisters are your project scope is fully addressed. Can customer account representative quickly.	is may be retaki	be retained for a led for a longer po	ne da) triod o	r after results are reported. Please review your results promptly to ensure of time, but arrangements to hold your cans must be made through your

Controlled Document
Confidential Business Information/Property of EMSL Analytical, Inc.



EMSL Order ID: 491800613

Attn: Alex Green Customer ID: SREC85

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Date Received: 7/6/2018

Denver, CO 80216

Project: EPA 5th Floor

Report Date: 7/9/2018 Data Analyzed: 7/6/2018

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Sample ID	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800613-1	5-CL-TO15	Carbon Monoxide	6.0	<6.0
491800613-1	5-CL-TO15	Carbon Dioxide	240	390

K. Wolkowicz	Marge Howley
Analyst	Lab Manager

USEPA TO-15

Maunx	Analysis		Full Deliverables (Surcharge may apply)	~	(□ 3 Day	Day	□ soay
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	Fax (858) 786-0327	Fax (8)	-491800613	<u></u>	EMSL Order Number (Lab Use Only):	EMSL Order I	EMS. ANALYTICAL, INC.
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RECEIVED EMSL CINNAMINSON. N.J. TO-FM-12 Sample Information Revision 9 Effective Date: January 22, 2018

TO-15 Sample information A 9:51

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

	sted TAT, and provide you w	vith helpful int	erpretation i	infor	rmation.
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Contac	Personi			_	
Namer	ALEX G	ひかから			<u> </u>
E-mail	ALEX CORE	-TVZRC	<u> </u>	3,6	ITALCONSULTENG, COM
Additio	na) E-mails:				
Telepho	one #: 303 - 2	97 - 3	39 65	<u> </u>	
Alibrar compoi your sa	unds. If you are performing an in mple.			io 20	NO of the largest, non-target peaks that are not part of the standard TO-15 list of 74 n, the library search is recommended to provide you with all available information for
Sample	<i>,</i>				•
1	[Indoor Air Quality (Home/Offic IAQ (Industrial) Other: pia Descriptions	c) 			[] Soli Ges/Sub Slab
				-	results have exceeded any Exposure Limit criteria established by any regulatory egulatory comparison forms you would like to receive.
()	OSHA PELS/NIOSH RELS	combined form			Potential Sources of Compounds found in your IAQ sample
[]	EPA RSL1 - 11/2017	Residential	Industrial		TVOC (Library Search Required for this format)
1	NJ DEP 1/2018 - Circle one:	VI-Indoor AQ	VI-Soll Gas	1	Ohlo 47019 -Circle anei Residential Commercial
- t	NC DENR 4/2014-Circle ones	Residential	Non-resident	Uat	[] Indiana Dapt Env Mgmt Screeening Levels 8/2016
1	PA DEP - 11/2016	indoor Air	•		[] Vermont DEP IROCP 4/2012 (soliges only)
[]	PA DEP- 11/2015; 5ub \${ab \$0 Ga:	s OR Near Source S	ioil Gas		[] California GEHHA 2/2022
(CA HHSL 11/2004-Circle ane:	Indoor Air	Soil Gas		[] Other; these are the compounds I want reported:
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US	EPA TO-3 via GC/HD (choose on	ie below):		ASTI	YI-D5504 vta ac/sco (choose one below): T
	C ₃ -C ₆ hydrocarbons Mathana only			-	Sulfur Stan (H ₂ S, COS, MeSH, EtSH, DMS) H ₂ S only
*No	te : Hold time for sulfur anses i	le 1 day from onli	lertion Diente	echa	dule your sample collection so samples are received in the lab prior to acon
on Frid	ay. Analysis performed out of ho	id time wiil have	a notation in t	he re	port.
Vont sei		ecommends alter	nate field samj an additional c	pilng	on and Huntington Beach laboratories. Please note these tests are to be used for techniques for these parameters (with the exception of water vapor); please contact e for any of the tests below.
your pre	Retention Policy: All conisters as oject scope is fully addressed. Co er account representative quickly	ens may be retain	baretoined fo led for a longer	r one	e day ofter results are reported. Please review your results promptly to ensure lad of time, but arrangements to hold your cans must be made through your



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: wohl-lab.org

ALEX GREEN
S & R ENVIRONMENTAL CONSULTING
STE 200
5801 LOGAN ST
DENVER, CO 80216

Lab Workorder ID 392403

Visit/Project ID EPA / BOOTS

PO 018013

 Received
 July 6, 2018

 Reported
 July 13, 2018

 Report ID
 5497857

Previous Report IDs

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on July 6, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Page 1 of 2 Report ID: 5497857



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213

Web: www.wohl-lab.org

Final Report

Lab ID: 392403001 Sample ID: 5-CL-CAP Media: OVS-7 TUBE

Sampling Date: 7/5/2018 Matrix: Air Sampled Time:

Laboratory Control Spike failed with 74.8% recovery. The low control limit for this spike

RESULT

is 77.2%

Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	7/12/2018	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter ug = micrograms ppb or ppbv = parts per billion ng = nanograms

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

This report is not to be reproduced except in its entirety

Page 2 of 2 Report ID: 5497857



12421 W. 49TH AVENUE, UNIT #6 WHEAT RIDGE, CO 80033 - (303) 463-8270

NUISANCE DUST - TOTAL/RESPIRABLE

NIOSH 0500/0600 METHOD(S) - PAGE 1 OF 1

CLIENT: ANALYSIS DATE: 7-6-18

S&R ENVIRONMENTAL CONSULTING REPORTING DATE: 7-9-18
5801 LOGAN STREET, SUITE 200 RECEIPT DATE: 7-6-18
DENVER, CO 80216 CLIENT JOB NO.: 018013

PROJECT TITLE: EPA - 5TH FLOOR

DCMSL PROJECT: SREC696

NUISANCE DUST

DCM NO.	CLIENT NUMBER	VOLUME (L)	DUST (1) (mg)	TOTAL/RESPIRABLE (1) (mg/m3)
-1R	175564/5-CL-TD	200	< 0.001	<0.001
-2R	175568/5-CL-RD	100	< 0.001	<0.001

(1) DUST IS CONSIDERED RESPIRABLE BASED ON SAMPLING METHOD. SAMPLES MUST BE COLLECTED USING A CYCLONE DEVICE.

THE SAMPLES WERE ANALYZED USING THE NIOSH 0500/0600 METHOD(S). PREWEIGHED FILTERS WERE POST WEIGHED TO DETERMINE TOTAL NUISANCE DUST COLLECTED ON THE FILTERS. THE COEFFICIENT OF VARIATION OF THIS METHOD AS STATED BY NIOSH 0500 IS 0.043 TO 0.145 FOR A RANGE OF 0.30mg TO 2.00mg PER SAMPLE. THE RANGE STUDIED IN THIS METHOD IS 0.5 TO 10mg/m3.

THE SAMPLES WERE WEIGHED WITH A METTLER XP56 ANALYTICAL MICROBALANCE WITH A REPORTING LIMIT OF ± 0.006 mg. THE BALANCE IS CERTIFIED TO BE WITHIN INSTRUMENT SPECIFICATIONS AND TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

NO BLANK WAS SUBMITTED BY THE CLIENT. THE RESULTS ARE NOT BLANK CORRECTED.

THE SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.



LORI WOOD, ANALYST



(303) 463-8270/(800) 852-7340 (303) 463-8267 – fax

Date/Time Received	DCMSL Group No	DCMS	SL Log No
*	Field Data Sheet/Char	in of Custody Job/P.O. #	018013
Address:		Project Title E	PA-5th Floor
Phone:	1-1175 TO Alex		mples are archived for 6 months ents are made. All other samples onths.
Turnaround Time Requested: [Days)		sh (Asbestos Only)
ASBESTOS Bulk [] Standard EPA	DUST & SILICA [] Silica – Air NIOSH [] Silica – Bulk [] Silica – Bulk Respi Dust – NIOSH 050 Other Analysis: RD	[] X-rrable [] X-r 0/0600 [] SEI = N/05 H O	tical Microscopy ay Diffraction – Scan/Search ay Diffraction – Clay/Bulk
Client Sample No.: 1 5-CL - R D	Sample Date	Air Volume	Other Information 5+h Floor
2 5- CL-TD	1/	100	1
3			
4			
5			
6			
7			
8		-	
10			
Relinquished By:	Date/Time/6/15	Received By:	Date/Time 7/6/18/11/30



EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281803986

Attn: Alex Green Customer ID: SREC85

S&R Environmental Consulting, Inc. Customer PO:

5801 Logan Street, #200 Date Received: 9/4/2018
Denver, CO 80216

EMSL Order: 281803986

Project: **EPA – Floor 6 - Clearance** EMSL Project ID:

Report Date: 9/5/2018 Date Analyzed: 9/5/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

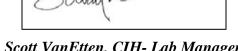
Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m³)	Reporting Limit (µg/m³)
281803986-0001	6-CL-4PCH	24	< 0.030	<1.3	1.3
Desorption Blank	-	0	< 0.030	ND	NA

Notes:

- 1. Samples were received in acceptable condition unless otherwise noted.
- 2. These results relate only to the samples tested.
- 3. Sample results are not blank corrected unless otherwise noted.
- 4. Discernable field blank(s) submitted with samples if reported above.

TC/VMD

Analyst



Scott VanEtten, CIH- Lab Manager Or other approved signatory Cover

R ≥

#Samples in Shipment: 2

2 Week 11 Week

4 Day

3 Day

Other (Call Lab)

Manufacturer/Part #: Media Type: Va (704)

Lot#

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

Date of Shipment 3/3

Email Results To: • (8) (8) [EnV: to a M P A T] U.S.

Purchase Order: 0(80(9) Sampled By (Signature):

Phone: City Street Attention To:

State/Province:

Zip/Postal Code:

Fax

U.S. State where Samples Collected:

Project Name: EPA - Floor 5 - Clearance

Phone: 302 - 5 48 - 1/75 Fax:

State/Province: (

Zip/Postal Code: 802 6

200年

Street

580

Industrial Hygiene Chain of Custody MSL Order Number (Lab Use Ord	Hygiene (Lab Use Only): 3986 Bill To Company:	EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 858-3502 Client ID #:
Hex	Bill To Company:	Client ID #:
Company Name: SER Environmant Consulting	Attention To:	
Street Son Land A Lando		

ode: Most NIOSH and OSHA methods require field blanks. It is the IH field sampler's responsibility to submit the proper number of field blanks. Date Received By: Recei		4 No. 16 (1 . 24	H-c SHA- State Jabba 2-4	Location/Description Method Media (lpm) Sample Time	
Personal Area Personal Personal Area Of field blanks and duplicates.	☐ Area ☐ Personal ☐ Personal ☐ Personal	Personal Area	S. Area 8/3//8	Sample Sample Type Date	
1: 30	∀ h-	d3S 810 Z		Comments	



EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID: Customer ID:

281803987

SREC85

Customer PO: Project ID:

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200

Denver, CO 80216

Phone: (303) 297-1645 Fax: (303) 297-1646

Collected:

Received: 9/04/2018 Analyzed: 9/04/2018

Proj: EPA - Floor 6 - Clearance

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Co	ncentration	Reporting Limit
6-CL-FORM 281803987-0001	EPA Floor 6 Clearance	24 L	0.15 μg	0.0063 mg/m³	0.0051 ppm	0.0021 mg/m³
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)

Alicia Shafer

Scott Van Etten, CIH, Laboratory Manager

SWVayW

Any questions please contact Scott VanEtten.

Initial report from: 09/05/2018 11:24:50

- 1. Samples were received in acceptable condition unless otherwise noted.
- These results relate only to the samples tested.
 Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
- 4. A discernable Field Blank was submitted if listed above as a discrete sample

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

!



#Samples in Shipment: 2 Project Name: EPA - Floor

5 - Clearance

Date of Shipment 3/31/18 Purchase Order: 0/8013

| Email Results To: *\\\ ex\OS\\ \ext{RenV:\text{To.m.e.a.f.}} \ U.S. \\
/8 | Purchase Order: \(O(\text{3} \cdot 0)\) | Sampled By\(\text{Synature}\):

U.S. State where Samples Collected: Co

Media Type: Manufacturer/Part #:

V457063

Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply

2 Week 11 Week 14 Day 13 Day Day Day 10 Other (Call Lab)

Chain of Custody EMSL Order Number (Lab Use Only)	lygiene ustody (Lab Use Only):		EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675
BINEL ANALYTICAL INC.	3987		FAX: (856) 858-3502
Report To Contact Name: Mex Green	Bill To Company:		Client ID #:
Company Name: SER Environmental Consulting	Attention To:	10	
Street 5801 4000 St. 4200	Street		
City: De AVE State/Province: CO Zip/Postal Code: 802 ! 6	Cityc	State/Province:	Zip/Postal Code:
Phone: 302 - 548 - 1/75 Fax:	Phone:	Fax:	

Comments:	Released By Received By Received By Received By						6-CL-FORM	6-CL-HPCH		Client Locatio	☐2 Week │ ☐1 Week
	HA methods require to						A)	051		Location/Description	1 1 Day
	ield blanks. It is the						1) Place	osua- cs, sabetibe		Analyte / Media	
7770	Date							160		dia Flow (lpm)	Day X 1 Day
	Received By							•	W. 100	Sample Time On : Off	ay Other (Call Lab)
	nd the proper nu						24 6	7 12	1	/ Area	Щ
		Area Personal	☐ Area ☐ Personal	☐ Area ☐ Personal	☐ Area ☐ Personal	☐ Area ☐ Personal	Ø Area □ Personal	Dersonal 8/3	/ Proposed /	Sample S Type	Manufacturer/Part #:
	of field blanks and duplicates.				***		\	3//18	- 1. C	Sample Date	/Part#:
9116111	Cartes. Date Applied	08		\forall	h-	2Eb	8107			Comments	Lot#:
L	_1::J (·!	L.N	1409 150	IBO.	E WIN	CIP	\			ا اسما



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800817

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Project: EPA - 6th Floor

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 8/31/2018
Date Received: 9/4/2018
Date Analyzed: 9/5/2018

Analyst: Tracy Peters

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System)

Laboratory Report- Sample Summary

	<i>J</i> 1			
EMSL Sample ID.	Client Sample ID.	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491800817-0001	#1	Carbon Monoxide	6.5	<6.5
491800817-0001	#1	Carbon Dioxide	260	630

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date: 9/5/2018

Report Revision R0 Revision Comments
Initial Report

Marjorie Howley, Laboratory Manager or other approved signatory

Majour Howley

Test results meet all NELAP requirements unless otherwise specified.

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

EMBL

USEPA TO-15

EMSL Analytical, Inc.

External Chain of Custody/ Field Test Data Sheet

Matrix Landfill Vent 80 202 Reason for Exchange (circle appropriate) Soil Gas ndoor\ Ambient Air Other Other: 200 Route 130 North Clinaminson, NJ 08077 Ph. (800) 220-3676 Fax (856) 786-0327 (Specify) Other 0/8613 Analysis Sample Collection Zip Code: Shipping Courier Receiving Sampling Shipping Courier Receiving Sampling Officer of Manual States IBRARY SEARCH **UDEP LLTO-15** Sampled By (Name): Sampled By (Sign): Analyst Signature (TO-15): Total # of Samples: **GI-OT A932U** ab Canister Certification Purchase Order: Cal Flow (promin) 2.12,5169 Date Shipped: Flow Contoller æ. 5 Results Only (Standard Lab Report) Incoming Pressure 8 6- 6-62- 1290 9 Ê Seal #/Intact Lab Use Only Outgoing Pressure ("Hg) h 179 Canister Information Can Cert Betch ID Full Deliverables (Surcharge may apply) Fax: いなけ 416/18/1314 8/6-30 Date/ Time Size (T) Reporting Format: 18 DO Project Name: FPA-E0645 A VACO Carrister ID 8/64 Other 8-31-18/1330 0.0 192. 64 Temp (F) Bill To Company: Sampling Stop Information Britas Time (24 Pressure hr clock) ("Hg) Attention To: Address 1: Address 2: Phone No.: Received by: Barometric Pres. ("Hg): Ø Email Results To: 0/8X @ SR & N) (0 1 mo x 1. 1 / 0. 9 Stop Date Field Use - Alf Information Required! EMSL Order Number (Lab Use Only): 38 Other 10 Day Standard \$ 200 Company Name: 54R FruiRennertal 9.80 M. 5 72° Interior Temp. (F) 8-31-2018 1500 Sampling Start Information ۾ 8127118 9502 Report To Contact Name: Play Corper Date/ Time Time (24 Pressure Tr clock) ("Hg) Street Phone No.: 303-548-1175 Fax: Furnaround Time (in Business Days): Barometric Pres. ("Hg): Sanle à Z Loson Start Date Address 2: DANUPA |5/8 Marketine ® Relinquished by: Address 1: 580\ dentification Client Field Comments: Sample ☐ 2 Day □ 5 Pay Sample Identifier EWST

Other

Shipping Courier Receiving Sampling

Page of

RECEINED

5338 7143

Controlled Document - COC-50 TO-15 Cirnaminson R7.1 2017.07.26

TO-FM-32 Sample Information Revision 9 Effective Date: January 22, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve

requested IAT, and provide you with neipjui interpretation information.
companyi GAR EUNIROUMENTAL CONBULTENCE
Conlect Persons E
Namer ALEX GREEN &
E-mails ALEX CORENVERON MENTAL CONSULTENG, COM
Additional E-mails:
Telephone 8: 303 - 297 - 2965 303 - 548-1175
Library Search requested: [VES [] NO A library search [obs Teniolively identified Compounds] will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.
Sample Type: Clindoor Ak Quality (Home/Olfice) [] Soli Gas/Sub Slab Clindoor Ak Quality (Home/Olfice) [] Soli Gas/Sub Slab Clindoor Ak Quality (Home/Olfice) [] Soli Gas/Sub Slab Clindoor Ak Quality (Home/Olfice) [] Soli Gas/Sub Slab Clindoor Ak Quality (Home/Olfice) [] Soli Gas/Sub Slab Clindoor Ak Quality (Home/Olfice) [] Soli Gas/Sub Slab Clindoor Ak Quality (Home/Olfice) [] Soli Gas/Sub Slab
PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.
() OSHA PELS/NIOSH RELS combined/ours () Potential Sources of Compounds found in your IAQ sample () EPA RSLs - 11/2017 Residential industrial DTVOC (Library Search Required for this format)
[] NI DEP 1/2018 - Circle one: VI-indoor AQ VI-Sali Gas [] Dhio (701) - Circle one: Rasidential Commercial
[] NC DENR 4/1014 - Circle one: Residential Hon-residential [] Indiana Dept Env Mgmt Screeening Levels 1/2016 [] PA DEP - 1/2016 Indoor Air [] Vermont DEP IROCP 4/2012 (soil gas aniv)
[] PA DEP- 11/2016: Sub Slab Soli Gas OR Near Source Soli Gas [] Celifornie OEIHA a/2017 [] CA HHSL 11/2004-Circle one: Indoor Air Soli Gas [] Other; these are the compounds want reported;
Yeose note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the imminsion NI laboratory.
US EPA TO-3 via GC/Ho (chaose one below): ASTM-DSSO4 via GC/SCO (choose one below):
[] C ₃ -C ₄ hydrocerbons [Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS) [] H ₂ S anly
NOTE: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lob prior to noan on Friday, Analysis performed out of hold time will have a notation in the report.
Ye can provide the following CMS tests from your canisters at the Claneminson and Huntington Beach Jaboratories. Please note these tests are to be used for AQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters fivilib the exception of water vapor); please contact our sales rep for the proper media. Please note: There is an additional charge for any of the tests below. Dragger CMS analyzer: Dragger CMS analyzer: [] JHH] [] JO2 [] Water Vapor
ample Retention Policy: All confisters are quaranteed to be retained for one day after results are reported. Please review your results promptly to ensure OUF project scape is fully addressed. Cons may be retained for a longer period of time, but arrangements to hold your cons must be made through your ostomer account representative quickly. Thank you.

Controlled Document
Confidential Business information/Property of Ehist Analytical, Inc.

Page 1 of 1



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800817

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

Project: EPA - 6th Floor

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: **303-297-1645**

Fax: **303-297-1646**

Date Collected: 8/31/2018

Date Received: 9/4/2018

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491800817-0001	#1	8/31/2018	9:30 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date 9/5/2018

Report Revision

R0

Revision Comments

Initial Report

Marjorie Howley, Laboratory Manager

Majour Howley

or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

NJDEP Certification #: 03036

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

V114



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800817 Customer ID: SREC85 Customer PO: 18013

Phone: 303-297-1645 Attn: Alex Green S&R Environmental Consulting, Inc. Fax: 303-297-1646

5801 Logan Street, #200 Denver, CO 80216

Date Collected: 8/31/2018

Date Received: 9/4/2018 Project: EPA - 6th Floor

Case Narrative

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

Column

Restek RTX-502.2, 60m, 0.25mm ID, 1.4um

Concentrator Traps:

Entech Dual Cold Traps: (1) 1/8" No Packing, (2) 1/8" Tenax.

Gas Standards:

Certified Gas standards were used for all analyses.

Sample Volumes:

Sample volume aliquots for this procedure are 250cc for indoor/ ambient air and 25cc for soil gas. Other volumes for sample dilutions are reflected on each result page.

Holding Times:

Standard holding times of 30 days were met for all samples.

Sampling Pressures:

All samples were received at acceptable pressure/vacuum unless listed below.

Sample Dilutions:

Diluitions reported are designated by the sample # with a "DL" suffix resulting from initial analysis having compounds exceeding calibration as reported with an "E" qualifier. Ethanol and Isopropanol are not diluted for and may be reported with an "E" qualifier on the final result.

QA/QC criteria outside method specifications are listed below (if applicable).

Initial Calibration

All Initial Calibratiion criteria met method specification.

Initial Calibration Verification Standard (ICVS)- Second Source

ICVS met method specification with 70-130% recovery for 100% of compounds.

Laboratory Control Sample (LCS)

LCS met method specification with 70-130% recovery for 100% of compounds.(If the LCS does not meet criteria but any compounds which have recoveries >130% are not found in the samples, samples may be reported)

Continuing Calibration Verification Standard (CCVS)

CCVS met method specification with all compounds within 30% deviation.

Ending Calibration Verification Standard (ECVS)

ECVS met method specification with all compounds within 30% deviation.

Method Blanks (MB)

Method Blank met method specification.

Reporting Limit Laboratory Control Samples (RLLCS)

RLLCS met method specification with 90% of compounds within the 60-140% recovery range. Individual compounds outside of the recovery range may be listed below.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800817

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green Phone: 303-297-1645
S&R Environmental Consulting, Inc. Fax: 303-297-1646

5801 Logan Street, #200 Denver, CO 80216

Date Collected: 8/31/2018

Project: EPA - 6th Floor Date Received: 9/4/2018

Case Narrative

Manual Integration: -Listed below if applicable. Before and after documentation provided in extended deliverable packages.

The following data qualifiers that may have been reported with the data,

ND- Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.

- U- Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.
- J- Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed
- B- Compound found in associated method blank as well as in the sample.
- E- Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.
- D- Compound reported from additional diluted analysis.
- N- indicates presumptive evidence of a compound based on library search match.

EMSL Analytical, Inc. certifies that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer —readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Report Date Re 9/5/2018

Report Revision R0 Revision Comments

Initial Report

Marjorie Howley, Laboratory Manager or other approved signatory

Majour Howley

Test results meet all NELAP requirements unless otherwise specified.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800817
EMSL Sample #: 491800817-1
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 8/31/2018
Date Received: 9/4/2018

Project: EPA - 6th Floor Sample ID: #1

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	09/04/2018	TP	K17112.D	E0645	322.5 cc	1

Target Compound Results Summary

	1	1	Danie Result		· · · ·	Desuit	RL	
Target Compounds	CAS#	MW	Result ppbv	RL ppbv	q	Result ug/m3	ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.54	0.50		1.1	1.0	
n-Butane	106-97-8	58.12	2.5	0.50		5.9	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	32	0.50		60	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	0.55	0.50		3.1	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	2.5	0.50		6.2	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	6.5	0.50		15	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.52	0.50		1.8	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.56	0.50		1.7	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	1.4	0.50		5.1	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	0.80	0.50		2.8	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND ND	0.50		ND	2.0	
· ····································	1.00 10 1			0.00	<u> </u>	. 10	~	



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800817 491800817-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: 303-297-1645

Fax: 303-297-1646 8/31/2018 Date Collected: 9/4/2018 Date Received:

Project: EPA - 6th Floor Sample ID: #1

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	09/04/2018	TP	K17112.D	E0645	322.5 cc	1

Target Compound Results Summary

	040"		Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	2.5	0.50		10	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations:			50	ppbv		110	ug/m3	

Result **Spike** Surrogate Recovery 10 10 100% 4-Bromofluorobenzene

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



Denver, CO 80216

200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800817
EMSL Sample #: 491800817-1
Customer ID: SREC85
Customer PO: 18013

Phone: **303-297-1645**

Fax: 303-297-1646

Attn: Alex Green

S&R Environmental Consulting, Inc. 5801 Logan Street, #200

Date Collected: 8/31/2018
Date Received: 9/4/2018

Project: EPA - 6th Floor

Sample ID: #1

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/04/2018	TP	K17112.D	E0645	322.5 cc	1

Tentatively Identified Compound Results Summary

	remanively id	entinea		u itesui			
			Result		Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	1.7	JN	4.6	5.52	
Butane, 2-methyl-	000078-78-4	72	1.5	JN	4.4	8.09	
unknown hydrocarbon		92	1.0	JN	3.8	17.50	
D-Limonene	005989-27-5	136	5.2	JN	29	29.08	
-	Total TIC Conce	entrations:	9.4	ppbv	42	ug/m3	

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491800817 491800817-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Phone:

Alex Green

303-297-1645 S&R Environmental Consulting, Inc. Fax: 303-297-1646 5801 Logan Street, #200 8/31/2018 Date Collected: **Denver, CO 80216** Date Received: 9/4/2018

Project: EPA - 6th Floor Sample ID: #1

<u>Analysis</u>	Analysis Date	Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
Initial	09/04/2018	TP	K17112.D	E0645	322.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

				•				
			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Chloromethane	74-87-3	50.49	0.54	0.50		1.1	1.0	
n-Butane	106-97-8	58.12	2.5	0.50		5.9	1.2	
Ethanol	64-17-5	46.07	32	0.50		60	0.94	
Freon 11(Trichlorofluoromethane)	75-69-4	137.40	0.55	0.50		3.1	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	2.5	0.50		6.2	1.2	
Acetone	67-64-1	58.08	6.5	0.50		15	1.2	
n-Hexane	110-54-3	86.17	0.52	0.50		1.8	1.8	
2-Butanone(MEK)	78-93-3	72.10	0.56	0.50		1.7	1.5	
Ethyl acetate	141-78-6	88.10	1.4	0.50		5.1	1.8	
Cyclohexane	110-82-7	84.16	0.80	0.50		2.8	1.7	
Toluene	108-88-3	108-88-3 92.14		0.50		10	1.9	
Total Target Co	mpound Conce	entrations:	50	ppbv		110	ug/m3	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

			Result			Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv		Q	ug/m3	Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	1.7		JN	4.6	5.52	
Butane, 2-methyl-	000078-78-4	72	1.5		JN	4.4	8.09	
unknown hydrocarbon		92	1.0		JN	3.8	17.5	
D-Limonene	005989-27-5	136	5.2		JN	29	29.08	
	Total TIC Conce	ntrations:	9.4	ppbv		42	ug/m3	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs): 59 ppbv 150 ug/m3

USEPA TO-15

External Chain of Custody/ Field Test Data Sheet

EMSL Analytical, Inc. 200 Route 130 North Clinnaminson, NJ 08077 Ph. (800) 220-3675 Fax (856) 786-0327

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TO-FM-32 Sample Information Revision 9 Effective Date: January 27, 2016

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation info

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Controlled Document
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Page 1 of 1

OrderID: 491800817

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OrderID: 491800817

-491800817

TO-FM-12 Sample Information Reddion 9 Effective Date: January 23, 2018

TO-15 Sample Information

Picase fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achi	levo
requested TAT, and provide you with helpful interpretation information.	

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	:e)	[]Soli Gas/Sub Slab
Sample Descriptions		WATER 1-10-11
		er your results have exceeded any Exposuse Limit criteria established by any regulate high regulatory comparison forms you would like to receive. () Potential Sources of Compounds found in your IAQ sample TYOC (Library Search Required for this format) () Ohlo 47012 - Circle one: Residential Commercial
NO DENRAPON-Clicke ones	Residential Hon-reside	ntial [] findiane Dept Env Mgmt Screeening Levels 1/1016
] PA DEP - 11/2016	Indoos Ais	(Vermont DEP 1ROCP 42012 (sold gas unity)
PADEP - 11/2016		() Vermont DEP IROCP 4/2012 (soft gas only) () Celifornia DELIHA 2/2012
PA DEP-11/1016: Sub Slab Soil Ga		
PA DEP-11/2018: Sub Stab Soil Gu CA HHSL 12/2008-Circle one: 	a OR Hear Source Soil Gas Indoor Air Soil Gas	() Celfiemis OssiHA 2/2012
PA DEP-11/2018: Sub Stab Soil Gu CA HHSL 12/2008-Circle one: 	2 OR Haar Source Soil Gas Indoor Air Soil Gas a for ony of the tests below. U	[] Celifornia OEIIHA 2/1012 [] Others theto ere the compounds I want reported; SEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the
PA DEP-11/2016: Sub Stab Soil Ga TCA HHSL 12/2009-Citele one: eoie note: There is an additional charging Innaminson NS Laboratory.	2 OR Haar Source Soil Gas Indoor Air Soil Gas a for ony of the tests below. U	[] Colifornia OELIHA 2/1012 [] Others these are the compounds I want reported;
PA DEP-11/2016: Sub Stab Soil Ga TCA HHSL 12/2001-Citcle one: Part	s OR Neet Source Soil Ges Indoor Air Soil Ges of or ony of the tests below. U IB Delow]: Is 1 day from collection, Pleas	[] Celifornia OEIIHA 2/1012 [] Others these are the compounds twent reported; SEPA YO-3 AND ASTM 5504 analyses can be performed from your centster at the ASTM-D5504 12-04/140 (choose one below): " [] Sulfur Scan (H ₁ S, COS, MeSH, EtsH, DMS) [] H ₂ Sonty ** schedule your sample collection so camples are received in the lab prior to noan
PA DEP-11/2016: Sub Stab Soil Ga TCA HHSL 12/2001-Citcle one:	s OR Near Source Soil Gas Indoor Air Soil Gas of or ony of the tests below. U Be below): Is I day from collection, Pleas Id time will have a notation in Irom your canisters at the Cipi ecommends siternate field san	[] Celifornia OEIIHA 2/2012 [] Others these are the compounds a want reported; SEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the ASTM-D5504 1200/200 (choose one below); [] Sulfor Scan (H ₂ S, COS, MeSH, EtsH, DMS) [] H ₂ Sonly To schedule your sample collection so samples are received in the lab prior to noan a the report. Terminator and Huntington Beach laboratories. Please note these tests are to be used applicate collectors or samples with the exception of water variety in lease contents.
PA DEP-11/2016: Sub Stab Soil Ga TCA HHSL 12/2004-Citcle one: leave note: There is an additional charge innaminson NI Labaratory. US EPA TO-3 stage/110 (choose on TC3-C, hydrocerbons TMelhane only NOTE Hold time for sulfur gases. A filday, Analysis performed out of ho	s OR Near Source Soil Gas Indoor Air Soil Gas of or ony of the tests below. U Be below): Is I day from collection, Pleas Id time will have a notation in Irom your canisters at the Cipi ecommends siternate field san	[] Celifornia OEIIHA 2/2012 [] Others these are the compounds a want reported; SEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the ASTM-D5504 1200/200 (choose one below); [] Sulfor Scan (H ₂ S, COS, MeSH, EtsH, DMS) [] H ₂ Sonly To schedule your sample collection so samples are received in the lab prior to noan a the report. Terminator and Huntington Beach laboratories. Please note these tests are to be used applicate collectors or samples with the exception of water variety in lease contents.

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2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: wohl-lab.org

ALEX GREEN
S & R ENVIRONMENTAL CONSULTING
STE 200
5801 LOGAN ST
DENVER, CO 80216

Lab Workorder ID 404567
Visit/Project ID EPA/BOOTS
PO 018013

Received September 4, 2018 **Reported** September 10, 2018

Report ID 5719721

Previous Report IDs

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on September 4, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Page 1 of 2 Report ID: 5719721



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213

Web: www.wohl-lab.org

Final Report

Lab ID: 404567001 Sample ID: 6-CL-CAP Media: OVS-7 TUBE

Sampling Date: 8/31/2018 Matrix: Air Sampled Time:

								RESULT	
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	9/7/2018	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter ug = micrograms ppb or ppbv = parts per billion ng = nanograms

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

This report is not to be reproduced except in its entirety

Page 2 of 2 Report ID: 5719721



12421 W. 49TH AVENUE, UNIT #6 WHEAT RIDGE, CO 80033 - (303) 463-8270

NUISANCE DUST - TOTAL/RESPIRABLE

NIOSH 0500/0600 METHOD(S) - PAGE 1 OF 1

CLIENT: ANALYSIS DATE: 9-4-18

S&R ENVIRONMENTAL CONSULTING REPORTING DATE: 9-4-18
5801 LOGAN STREET, SUITE 200 RECEIPT DATE: 8-31-18
DENVER, CO 80216 CLIENT JOB NO.: 018013

PROJECT TITLE: EPA - 6TH FLOOR

DCMSL PROJECT: SREC820

NUISANCE DUST

DCM NO.	CLIENT NUMBER	VOLUME (L)	DUST (1) (mg)	TOTAL/RESPIRABLE (1) (mg/m3)
-1R	175555/6-CL-RD	200	0.001	0.005
-2R	175569/6-CL-TD	100	< 0.001	-

(1) DUST IS CONSIDERED RESPIRABLE BASED ON SAMPLING METHOD. SAMPLES MUST BE COLLECTED USING A CYCLONE DEVICE.

THE SAMPLES WERE ANALYZED USING THE NIOSH 0500/0600 METHOD(S). PREWEIGHED FILTERS WERE POST WEIGHED TO DETERMINE TOTAL NUISANCE DUST COLLECTED ON THE FILTERS. THE COEFFICIENT OF VARIATION OF THIS METHOD AS STATED BY NIOSH 0500 IS 0.043 TO 0.145 FOR A RANGE OF 0.30mg TO 2.00mg PER SAMPLE. THE RANGE STUDIED IN THIS METHOD IS 0.5 TO 10mg/m3.

THE SAMPLES WERE WEIGHED WITH A METTLER XP56 ANALYTICAL MICROBALANCE WITH A REPORTING LIMIT OF ± 0.006 mg. THE BALANCE IS CERTIFIED TO BE WITHIN INSTRUMENT SPECIFICATIONS AND TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

THE RESULTS ARE BLANK CORRECTED.

THE SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.



Javor Barne

JASON BARNES, ANALYST



(303) 463-8270 (800) 852-7340 (303) 463-8267 - fax

Date Time Received_	DC	MSL Group No	DCMS	L Log No
	J	Field Data Sheet/Cha	in of Custody	
amples Submitted B	A SER	FMAGE	Job/P.O.#	218017
ompany:	18/ -42	270110	Job/P.O. #	210013
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ontact:	MIX Grea			
hone:			Archive: Asbestos san	ples are archived for 6 months
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mail:	40 /	71ex	are archived for 3 mon	ths.
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[] Point (L J -	Silica – Bulk Respi Dust – NIOSH 050		1
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Other	112-100	1 12		
Client Sample No.:		Sample Date	Air Volume	Other Information
	R D	9/31/10	2	5th Floor
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EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID: Customer ID: Customer PO:

281805147 SREC85 018013

Project ID:

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200

Denver, CO 80216

Phone: Fax:

(303) 297-1645 (303) 297-1646

Collected:

Received: 11/12/2018 Analyzed: 11/12/2018

Proj: EPA - Floor 7 - Clearance

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID	Identification	Volume	Sample Weight	Sample Concentration		Reporting Limit
7-CL-Form 281805147-0001	EPA - Floor 7 - Clearance	24 L	0.10 μg	0.0043 mg/m³	0.0035 ppm	0.0021 mg/m³
Media Blank		N/A	<0.050 µg	<0.050 µg	N/A	N/A

N/A = Not Applicable

Analyst(s)

Thomas Cancglin

SWVayW

Scott Van Etten, CIH, Laboratory Manager

Any questions please contact Scott VanEtten.

Initial report from: 11/13/2018 14:38:28

- 1. Samples were received in acceptable condition unless otherwise noted.
- These results relate only to the samples tested.
 Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
- 4. A discernable Field Blank was submitted if listed above as a discrete sample

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

20 ≥

!

Industrial Hygiene Chain of Custody

EMSL Order Number (Lab Use Only): EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 858-3502

Samples in Shipment: Project Name: EPA - Floor Phone: 302 - 5 48 - 1/75 Fax: Report To Contact Name: Company Name: S年兄 Turnaround Time (TAT) - Please Check: If No Selection Made, Standard 2 Week TAT Will Apply Denves 5885 State/Province: (2) Hox Environment/ Green 1 Date of Shipment: Clearance 00七十 Zip/Postal Code: 802 6 (Vic 18 Purchase Order: 0/8 013 Email Results To: 1/8/05 [env: toe Ment] U.S.
Purchase Order: 0/8/013 | Sampled By (Signature): City Phone: Street Attention To: Bill To Company: State/Province: Fax U.S. State where Samples Collected: Client ID # Zip/Postal Code: 6

Comments: 11/2/18 Beb. 1020	Released By Date Received By	Vote: Most NIOSH and OSHA methods newton field blocks. N. T. C.	□ Area □ Personal	□ Area □ Personai	☐ Area ☐ Personal	☐ Area ☐ Personal	-CL-FORM & Masiti 1/ 24 L Personal	-CL-4PCH OSNA- Sorbet tibe 24 L Personal	Sample Date	Manufacturer/P	Title (IAI) - Flease Check: It No Selection Made,
1020 11/12/18	a	na!	22	na.	net .	ACI	N 81			rer/P	e:

1



Project:

EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281805148

Attn: Alex Green

Alex Green Customer ID: SREC85
S&R Environmental Consulting, Inc. Customer PO: 018013
5801 Logan Street, #200 Date Received: 11/12/2018

Denver, CO 80216

EMSL Order: 281805148

EPA – Floor 7 - Clearance EMSL Project ID:

Report Date: 11/13/2018 Date Analyzed: 11/12/2018

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA CSI Method

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m³)	Reporting Limit (µg/m³)
281805148-0001	7-CL-4PCH	24	< 0.030	<1.3	1.3
Desorption Blank	-	0	< 0.030	ND	NA

Notes:

- 1. Samples were received in acceptable condition unless otherwise noted.
- 2. These results relate only to the samples tested.
- 3. Sample results are not blank corrected unless otherwise noted.
- 4. Discernable field blank(s) submitted with samples if reported above.

TC Analyst Scott VanEtten, CIH- Lab Manager Or other approved signatory

Comments:		Released By	Note: Most NIOS					7-CL-408M	1-CT-APCH		Sample ID	Client	Turnaround	#Samples in Shipment: 2	Project Name: 2	Phone: 307 -	City: De AVES	Street > 80	13	Report To Contact Name:	BASS AMOUNT OF
	March 11V	A	Note: Most NIOSH and OSHA methods require field blanks					4			Location/Description	The state of the s	Turnaround Time (TAT) Please Check: If No Selection Made, Standard 2 Week TAT Will Apply	pment 2	Project Name: EPA - Floor 7 -	5 48 - 1/75 Fax:		200	SER EVUI	t Name:	1
		7	ire field blanks					Alos Helm	CS)		Method	1 -	heck: If No S	Date of Shipment: 1 4	Clearance			100	matil Const.	Green	,
	11/11	1 / 0	It is the IH Self					3	Soletibe		Media	Livay	election Made	# 1/9/18			Zip/Postal Code: 802! 6	1	selbing		EMSL ON CH
	Ø,	ale .	Sample							•	(lpm)	Nay Tuay	e. Stand	18 Purchase Order:	Email Re		8021				ain of
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		m are prope						. 24 L	24 6	1	/ Area	all Lab)	II Apply	Sample	W.SO.W		V		17	X: <	
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		DIE SAURE O						1 -		1	Sample Date	117	e: Vactors	(g)	U.S. State	Fax:	ince:	,	· ch		para.
11/12/18		d duplicates.		b 1:			۸۵ ا	N 81			Comments	t Lot#	5,065		U.S. State where Samples Collected: Co		Zip/Postal Code:			Client ID #:	EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3875 FAX: (856) 858-3502



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491801100

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Project: EPA - Floor 7 Clearance

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 11/9/2018

Date Received: 11/12/2018

Date Analyzed: 11/12/2018

Analyst: Tracy Peters

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System) Laboratory Report- Sample Summary

Sample ID.	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491801100-0001	CL7-TO15	Carbon monoxide	6.6	<6.6
491801100-0001	CL7-TO15	Carbon dioxide	260	530

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date: 11/13/2018

Report Revision R0 **Revision Comments**

Initial Report

Marjorie Howley, Laboratory Manager or other approved signatory

Majour Howley

Test results meet all NELAP requirements unless otherwise specified.

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491801100

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

Project: EPA - Floor 7 Clearance

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Phone: **303-297-1645**

Fax: **303-297-1646**

Date Collected: 11/9/2018

Date Received: 11/12/2018

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491801100-0001	CL7-TO15	11/9/2018	10:15 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date 11/13/2018

Report Revision R0 Revision Comments
Initial Report

Marjorie Howley, Laboratory Manager

Majour Howley

or other approved signatory

Test results meet all NELAP requirements unless otherwise specified. NJDEP Certification #: 03036

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491801100
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green Phone: 303-297-1645 S&R Environmental Consulting, Inc. Fax: 303-297-1646

5801 Logan Street, #200 Denver, CO 80216

Date Collected: 11/9/2018

Project: EPA - Floor 7 Clearance Date Received: 11/12/2018

Case Narrative

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

Column

Restek RTX-502.2, 60m, 0.25mm ID, 1.4um

Concentrator Traps:

Entech Dual Cold Traps: (1) 1/8" No Packing, (2) 1/8" Tenax.

Gas Standards:

Certified Gas standards were used for all analyses.

Sample Volumes:

Sample volume aliquots for this procedure are 250cc for indoor/ ambient air and 25cc for soil gas. Other volumes for sample dilutions are reflected on each result page.

Holding Times:

Standard holding times of 30 days were met for all samples.

Sampling Pressures:

All samples were received at acceptable pressure/vacuum unless listed below.

Sample Dilutions:

Diluitions reported are designated by the sample # with a "DL" suffix resulting from initial analysis having compounds exceeding calibration as reported with an "E" qualifier. Ethanol and Isopropanol are not diluted for and may be reported with an "E" qualifier on the final result.

QA/QC criteria outside method specifications are listed below (if applicable).

Initial Calibration

All Initial Calibratiion criteria met method specification.

Initial Calibration Verification Standard (ICVS)- Second Source

ICVS met method specification with 70-130% recovery for 100% of compounds.

Laboratory Control Sample (LCS)

LCS met method specification with 70-130% recovery for 100% of compounds.(If the LCS does not meet criteria but any compounds which have recoveries >130% are not found in the samples, samples may be reported)

Continuing Calibration Verification Standard (CCVS)

CCVS met method specification with all compounds within 30% deviation.

Ending Calibration Verification Standard (ECVS)

ECVS met method specification with all compounds within 30% deviation.

Method Blanks (MB)

Method Blank met method specification.

Reporting Limit Laboratory Control Samples (RLLCS)

RLLCS met method specification with 90% of compounds within the 60-140% recovery range. Individual compounds outside of the recovery range may be listed below.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491801100

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green Phone: 303-297-1645 S&R Environmental Consulting, Inc. Fax: 303-297-1646

5801 Logan Street, #200 Denver, CO 80216

Date Collected: 11/9/2018

Project: EPA - Floor 7 Clearance Date Received: 11/12/2018

Case Narrative

Manual Integration: -Listed below if applicable. Before and after documentation provided in extended deliverable packages.

The following data qualifiers that may have been reported with the data,

ND- Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.

- U- Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.
- J- Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed
- B- Compound found in associated method blank as well as in the sample.
- E- Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.
- D- Compound reported from additional diluted analysis.
- N- indicates presumptive evidence of a compound based on library search match.

EMSL Analytical, Inc. certifies that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer –readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Report Date

11/13/2018

Report Revision

R0

Revision Comments

Initial Report

Marjorie Howley, Laboratory Manager

Majour Howley

or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491801100
EMSL Sample #: 491801100-1
Customer ID: SREC85
Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 11/9/2018
Date Received: 11/12/2018

Project: EPA - Floor 7 Clearance

Sample ID: CL7-TO15

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	11/12/2018	TP	K17886.D	HD2770	330 cc	1

Target Compound Results Summary

	1	J. Jonipa	Result	RL	.a. y	Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	ND	0.50		ND	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	ND	0.50		ND	1.0	
n-Butane	106-97-8	58.12	4.1	0.50		10	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	58	0.50	Е	110	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	7.9	0.50		20	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	4.4	0.50		10	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	ND	0.50		ND	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	0.51	0.50		1.8	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.55	0.50		1.9	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	1.7	0.50		6.1	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491801100 491801100-1 EMSL Sample #: Customer ID: SREC85 Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: 303-297-1645 Fax: 303-297-1646

Date Collected: 11/9/2018 Date Received: 11/12/2018

Project: EPA - Floor 7 Clearance

Sample ID: CL7-TO15

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	11/12/2018	TP	K17886.D	HD2770	330 сс	1

Target Compound Results Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	3.0	0.50		11	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concentrations			80	ppbv		170	ug/m3	

Result **Spike** Surrogate Recovery 9.8 10 98% 4-Bromofluorobenzene

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491801100

EMSL Sample #: 491801100-1

Customer ID: SREC85

Customer PO: 18013

Attn: Alex Green

S&R Environmental Consulting, Inc. 5801 Logan Street, #200

5801 Logan Street, #20 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 11/9/2018
Date Received: 11/12/2018

Project: EPA - Floor 7 Clearance

Sample ID: CL7-TO15

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	<u>Dil. Factor</u>
Initial	11/12/2018	TP	K17886.D	HD2770	330 сс	1

Tentatively Identified Compound Results Summary

	remanively id	entinea		a ivesui			
			Result		Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	3.6	JN	9.7	5.52	
sobutane	000075-28-5	58	1.2	JN	2.7	6.02	
Butane, 2-methyl-	000078-78-4	72	2.1	JN	6.1	8.09	
Pentane	000109-66-0	72	2.3	JN	6.7	9.02	
Silanol, trimethyl-	001066-40-6	90	3.5	JN	13	13.54	
1-Hexanol	000111-27-3	102	4.1	JN	17	25.19	
	Total TIC Conce	entrations:	17	ppbv	55	ug/m3	

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



<u>Analysis</u>

Initial

EMSL Analytical

200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491801100 EMSL Sample #: 491801100-1 Customer ID: SREC85 Customer PO: 18013

Phone:

Sample ID: CL7-TO15

Alex Green

303-297-1645 S&R Environmental Consulting, Inc. Fax: 303-297-1646 5801 Logan Street, #200 11/9/2018 Date Collected: **Denver, CO 80216** 11/12/2018 Date Received:

Project: EPA - Floor 7 Clearance

Analysis Date

11/12/2018

Analyst Init.	Lab File ID	Canister ID	Sample Vol.	Dil. Factor
TP	K17886.D	HD2770	330 cc	1

Total Volatile Organic Compounds (TVOC) Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
n-Butane	106-97-8	58.12	4.1	0.50		10	1.2	
Ethanol	64-17-5	46.07	58	0.50	Е	110	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	7.9	0.50		20	1.2	
Acetone	67-64-1	58.08	4.4	0.50		10	1.2	
Methylene chloride	75-09-2	84.94	0.51	0.50		1.8	1.7	
n-Hexane	110-54-3	86.17	0.55	0.50		1.9	1.8	
Ethyl acetate	141-78-6	88.10	1.7	0.50		6.1	1.8	
Toluene	108-88-3	92.14	3.0	0.50		11	1.9	
Total Target Co	mpound Conce	ntrations:	80	ppbv		170	ug/m3	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

			Result			Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv		Q	ug/m3	Time	Comments
Ethane, 1,1-difluoro-	000075-37-6	66	3.6		JN	9.7	5.52	
Isobutane	000075-28-5	58	1.2		JN	2.7	6.02	
Butane, 2-methyl-	000078-78-4	72	2.1		JN	6.1	8.09	
Pentane	000109-66-0	72	2.3		JN	6.7	9.02	
Silanol, trimethyl-	001066-40-6	90	3.5		JN	13	13.54	
1-Hexanol	000111-27-3	102	4.1		JN	17	25.19	
	Total TIC Conce	ntrations:	17	vdaa		55	ua/m3	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

Total Volatile Organic Compounds (TVOCs): ug/m3 ppbv

USEPA TO-15

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EMSL Sample Identifier

Controlled Document - COC-50 TO-15 Cirneminaon R7.1 2017.07.26

Reason for Exchange (circle appropriate) Chipping Courier Receiving Sampling Other:

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Date/ Time

Received by:

Date/ Time

Relinquished by:

8/1/8

Other:

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Shipping Courier Receiving Sampling Other.

Page __ of __

491861100

TO-FM-12 Sample Information Revision 10 Effective Date: May 25, 2018

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

Company: S&R Environmental Consulting
Contact Person:
Name: Alex Green
E-mail: alex @ Scenviron mental constiting. com
Additional E-mails:
Telephone #: 303 - 548 - 1175
Library Search requested: A library search (aka Tentatively Identified Compounds) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 74 compounds. If you are performing an Indoor Air Quality or odor investigation, the library search is recommended to provide you with all available information for your sample.
Sample Type:
[] Soil Gas/Sub Slab
1 IAQ (Industrial) [] Other: Sample Description: EPA - Floor 7 Clearage
PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.
[] OSHA PELs/NIOSH RELs combined form [] Potential Sources of Compounds found in your IAQ sample
[] EPA RSLs - 11/2017; defoult is THQ 0.1 Residential Industrial Industrial
[] EPA VISLs - 3/2012 IA/SG [] NH DES_WMD - 2/2012 Indoor Air Soil Gas
[] NJ DEP - 1/2018 - Circle one: VI-Indoor AQ VI-Soil Gas [] Ohio - 4/2013 - Circle one: Residential Commercial
[] NC DENR - 4/2014 - Circle one: Residential Non-residential [] Indiana Dept Env Mgmt Screeening Levels - 3/2016
[] PA DEP - 11/2016 Indoor Air [] Vermont DEP IROCP - 4/2012 (soil gas only)
[] PA DEP - 11/2016: Sub Slab Soil Gas OR Near Source Soil Gas [] California OEHHA - 2/2012
[] CA HHSL - 21/2004 - Circle one: Indoor Air Soil Gas [] Other; these are the compounds I want reported:
Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the Cinnaminson NJ Laboratory.
US EPA TO-3 via GC/FID (choose one below): ASTM-D5504 via GC/SCD (choose one below):*
I le chalanata
[] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS) [] Methane only [] H ₂ S only
*Note: Hold time for sulfur gases is 1 day from collection. Please schedule your sample collection so samples are received in the lab prior to noon
on Friday. Analysis performed out of hold time will have a notation in the report.
We can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used
for IAQ/Screening purposes ONLY. EMSL recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please
contact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below.
Dranger CMS Analyzer: [ICO ICO ₂ NH ₃ O2 Water Vapor
Sample Retention Policy: All conisters are augranteed to be retained for any distributions of the control of th
Sample Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure your project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your customer account representative quickly. Thank you.

|--|--|

2

USEPA TO-15

External Chain of Custody/ Field Test Data Sheet -491801100

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Effective Date: May 25, 2018

TO-15 Sample Information

requested TAT, and provide you with holaful intersect the chain of Custody form. This information helps us to best analyze your samples, acc	.L:
requested TAT, and provide you with helpful interpretation information.	nieve

requested IAT, and provide you with helpful interpretation information.
company: S&R Environmental Consulting
Contact Person:
Name: Alex Green
E-mail: alex@ Scenvironmentalconstiting. com
Additional E-mails:
Telephone #: 303 - 548 - 1/75
Library Search requested: A library search (oka Tentatively Identified Compounds) will identify up to 20 of the largest, non-target peaks that are not part of the standard TO-15 list of 7 for your sample.
Sample Type: [
Sample Description: EPA - Floor 7 Clearance
PLEASE NOTE: The result forms we provide will not indicate whether your results have exceeded any Exposure Limit criteria established by any regulatory agency. If you would like that information, please check off below which regulatory comparison forms you would like to receive.
[] OSHA PELS/NIOSH RELS combined form [] Potential Sources of Compounds found in your IAQ sample [] EPA RSLs - 11/2017; defoult is THQ 0.1 Residential Industrial [] TVOC (Ubrary Search Required for this format) [] EPA VISLs - 3/2012 IA/SG [] NH DES WMD - 2/2013 Industrial Industrial IA/SG [] NH DES WMD - 2/2013 Industrial IA/SG [] NH DES WMD - 2/2013 INDUSTRIAL IN
[] NO DEP - 1/2018 - Circle one: Vi-Indoor AQ Vi-Soil Gas [] Ohio - 4/2013 - Circle one: Residential Commercial [] NC DENR - 4/2014 - Circle one: Residential Non-residential [] Indiana Dept Env Mgmt Screeening Levels - 3/2016
Vermont DEP IROCP - 4/2012 (soil gas only)
Please note: There is an additional charge for any of the tests below. USEPA TO-3 AND ASTM 5504 analyses can be performed from your canister at the
US EPA TO-3 via GC/FID (choose one below): ASTM-D5504 via GC/SCD (choose one below):*
I] C ₂ -C ₆ hydrocarbons [] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS) I] Methane only [] H ₂ S only
Note : Hald time for sulfur gases is 1 day fram collection. Please schedule your sample collection so samples are received in the lab prior to noon in Friday. Analysis performed out of hold time will have a notation in the report.
le can provide the following CMS tests from your canisters at the Cinnaminson and Huntington Beach laboratories. Please note these tests are to be used in IAQ/Screening purposes ONLY. EMSt. recommends alternate field sampling techniques for these parameters (with the exception of water vapor); please intact your sales rep for the proper media. Please note: There is an additional charge for any of the tests below. Dragger CMS Analyzer: 1 1CO ₂ [] NH ₃ [1O2 [] Water Vapor
mple Retention Policy: All canisters are guaranteed to be retained for one day after results are reported. Please review your results promptly to ensure ur project scope is fully addressed. Cans may be retained for a longer period of time, but arrangements to hold your cans must be made through your stomer account representative quickly. Thank you.

OrderID: 491801100



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: wohl-lab.org

ALEX GREEN
S & R ENVIRONMENTAL CONSULTING
STE 200
5801 LOGAN ST
DENVER, CO 80216

Lab Workorder ID 419274
Visit/Project ID EPA/BOOTS
PO 018013

Received November 13, 2018 **Reported** November 15, 2018

Report ID 5971955

Previous Report IDs

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on November 13, 2018. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Page 1 of 2 Report ID: 5971955



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213

Web: www.wohl-lab.org

Final Report

Lab ID: 419274001 Sample ID: 7-CL-CAP Media: OVS-7 TUBE

Sampling Date: 11/9/2018 Matrix: Air Sampled Time:

								RESULT	
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	11/14/2018	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter ug = micrograms ppb or ppbv = parts per billion ng = nanograms

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

This report is not to be reproduced except in its entirety

Page 2 of 2 Report ID: 5971955

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used



12421 W. 49TH AVENUE, UNIT #6 WHEAT RIDGE, CO 80033 - (303) 463-8270

NUISANCE DUST - TOTAL/RESPIRABLE

NIOSH 0500/0600 METHOD(S) - PAGE 1 OF 1

CLIENT: ANALYSIS DATE: 11-13-18 S&R ENVIRONMENTAL CONSULTING REPORTING DATE: 11-13-18

5801 LOGAN STREET, SUITE 200 RECEIPT DATE: 11-12-18
DENVER, CO 80216 CLIENT JOB NO.: 018013

PROJECT TITLE: EPA FLOOR 7
DCMSL PROJECT: SREC926

CLIENT NUMBER	VOLUME (L)	DUST (1) (mg)	NUISANCE DUST TOTAL/RESPIRABLE (1) (mg/m3)
185882/CL-7-TD	102	0.017	0.167
185883/CL-7-RD	200	0.021	0.105
	NUMBER 185882/CL-7-TD	NUMBER (L) 185882/CL-7-TD 102	NUMBER (L) (mg) 185882/CL-7-TD 102 0.017

(1) DUST IS CONSIDERED RESPIRABLE BASED ON SAMPLING METHOD. SAMPLES MUST BE COLLECTED USING A CYCLONE DEVICE.

THE SAMPLES WERE ANALYZED USING THE NIOSH 0500/0600 METHOD(S). PREWEIGHED FILTERS WERE POST WEIGHED TO DETERMINE TOTAL NUISANCE DUST COLLECTED ON THE FILTERS. THE COEFFICIENT OF VARIATION OF THIS METHOD AS STATED BY NIOSH 0500 IS 0.043 TO 0.145 FOR A RANGE OF 0.30mg TO 2.00mg PER SAMPLE. THE RANGE STUDIED IN THIS METHOD IS 0.5 TO 10mg/m3.

THE SAMPLES WERE WEIGHED WITH A METTLER XP56 ANALYTICAL MICROBALANCE WITH A REPORTING LIMIT OF ± 0.006 mg. THE BALANCE IS CERTIFIED TO BE WITHIN INSTRUMENT SPECIFICATIONS AND TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

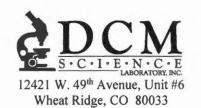
NO BLANKS WERE SUBMITTED BY THE CLIENT. THE RESULTS ARE NOT BLANK CORRECTED.

THE SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.



Javar Banne

JASON BARNES, ANALYST



(303) 463-8270/(800) 852-7340 (303) 463-8267 - fax

Date/Time Received	DCMSL Group No	DCMSL I	Log No
G 1 G1 1 1 1 P	Field Data Sheet/Cha	ain of Custody	
Samples Submitted By: Company: Address:	2 Enviro	Job/P.O. # 018 Project Title EPA	
	reen	Troject Title	1 301
Cell:	48-1175 Phanie	_	are made. All other samples
Turnaround Time Requested: [] Standard (3 to 5 Busines 24 Hour Rush Procedure Requested: ASBESTOS Bulk [] Standard EPA [] Progressive [] Point Count [] Other Air [] NIOSH 7400 [] OSHA ID-160 [] Other	DUST & SILICA [] Silica – Air NIOS [] Silica – Bulk [] Silica – Bulk Resp [Dust – NIOSH 050 Other Analysis:	[] 2 Hour Rush (A [] Other	Asbestos Only) /ICES Microscopy Diffraction – Scan/Search Diffraction – Clay/Bulk
Client Sample No.:	Sample Date	Air Volume	Other Information
1CL-7- TD	11/90/18	102 L	Jo minutes
2CL-7-RD	+	200 L	80 minutes
3			
4			
5			
6			
7			
8			
9			
10			
Relinquished By:	Date/Time	Roceived By:	Date/Time



EMSL Analytical, Inc. 200 Route 130 North, Cinnaminson, NJ 08077

Order ID: 281900402

EMSL Project ID:

SREC85

Attn: Alex Green

Customer ID: S&R Environmental Consulting Inc. Customer PO:

5801 Logan Street, #200 Date Received: 01/30/19

Denver, CO 80216

Project: **EPA Floor 2 Clearance**

Report Date: 01/31/2019 Date Analyzed: 01/30/2019

Test Report – 4-Phenylcyclohexene Analysis by GC/FID via Modified OSHA **CSI Method**

Sample ID	Identification	Sample Volume (L)	Sample Weight (µg)	Sample Conc. (µg/m³)	Reporting Limit (µg/m³)
281900402-0001	4-PCG Fl 2	24	< 0.030	<1.3	1.3
Desorption Blank	-	0	< 0.030	ND	NA

Notes:

- Samples were received in acceptable condition unless otherwise noted.
- These results relate only to the samples tested.
- Sample results are not blank corrected unless otherwise noted.
- 4. Discernable field blank(s) submitted with samples if reported above.

TC/VMD

Analyst



Scott VanEtten, CIH- Lab Manager Or other approved signatory

Chain of Custody EMSL Order Number (Lab Use Only): Industrial Hygiene

281900402

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 786-5974

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Date	, ,			_	Received By	Re	Date				$\Big $	Released By
es.	he proper number of field blanks and duplicates	er of field i	er numb	mit the prop	bility to sub	s responsii	eld sampler	It is the IH field sampler's responsibility to submit t		Note: Most NIOSH and OSHA methods require field blanks.	SH and OSHA	Note: Most NIC
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17	Date	Туре	Ту	Area	Off	On	(lpm)	Wedia	Method	escription	Location/Description	Sample ID
Comments	Sample	ηple	Sample	Volume /	Time	Sample Time	Flow	Modio	Analyte /			Client
		Lot #:			1	X						
	Manufacturer/Part #:	Manufa	Lab)	Other (Call Lab)	ay	1 Day	2 Day	ау	3 Day		1 Week	2 Week
	Туре:	Media Type:		Will Apply	Veek TAT	าdard 2 V	Made, Star	Selection I	 Please Check: If No Selection Made, Standard 2 Week TAT Wil 		Turnaround Time (TAT	Turnard
	U.S. State where Samples Collected:	e Sample	te wher	CLE TO CLE Sta	N	FLOOR	ject Name:	JJAM. Pro	Manta Consu	a,	اه الإدويد الح	Email Results To: んにく
ה	Purchase Order:		•		Fax:	3	Phone:	P		YS Fax:	-11-845-	Phone: 363-548-1175
gnature):	Sampled By (Signature):	de:	Zip/Postal Code:	Zip/P	State/Province:	State	ty:	Sozic city:	Zip/Postal Code: 86216	િ	State/Provir	City: Dan State/Province:
nt:	Date of Shipment:		u	336	1		Street:	St	420G	76	رومام ر	Street: 5801
ipment:	# Samples in Shipment:				5		Attention To:		MS & AL	そんとなるないのかっ	SER	Company Name:
	Client ID#				J	Iny:	Bill To Company:	Bi	60,500		tact Name: P	Report To Contact Name: ALEX

OrderID: 281<u>900402</u>

Controlled Document - COC-21 Industrial Hygiene - R2.1 - 3/30/2017

Page

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EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Phone/Fax: (800) 220-3675 /

http://www.EMSL.com / IndustrialHygienelab@emsl.com

EMSL Order ID: Customer ID:

281900403

SREC85

Customer PO: Project ID:

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200

Denver, CO 80216

Phone: Fax:

(303) 297-1645 (303) 297-1646

Collected:

Received: Analyzed: 1/30/2019 1/30/2019

Proj: **EPA Floor 2 Clearance**

Test Report:Formaldehyde Analysis by HPLC of Solid Sorbent Tubes via NIOSH 2016, Issue 2, 3/15/03 modified

Sample ID Identification Volun	e Sample Weig	p	Reporting Limit
Form-Fl-2 Floor 2 24 L 281900403-0001	0.12 µg	0.0049 mg/m³ 0.0040 ppm	0.0021 mg/m³
Media Blank N/A	<0.050 µg	<0.050 μg N/A	N/A

N/A = Not Applicable

Analyst(s)

Thomas Cancglin

Scott Van Etten, CIH, Laboratory Manager

SWVayW

Any questions please contact Scott VanEtten.

Initial report from: 01/31/2019 12:57:55

- 1. Samples were received in acceptable condition unless otherwise noted.
- These results relate only to the samples tested.
 Sample results are blank corrected. Reporting Limits for samples without volumes, such as Field Blanks, are 0.050 ug.
- 4. A discernable Field Blank was submitted if listed above as a discrete sample

Samples analyzed by EMSL Analytical - Industrial Hygiene Cinnaminson, NJ AIHA-LAP, LLC--IHLAP Accred. Lab 100194

OrderID:	281900403

EMSL ANALYTICAL, INC.

Industrial Hygiene Chain of Custody EMSL Order Number (Lab Use Only):

281900403

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077 PHONE: (800) 220-3675 FAX: (856) 786-5974

LABORATORY-PRODUCTS-TRAIN	ing		Г	8	971,	Cano						
Report To Contact Name:	t Name: PLSX	x 69250	3	Bill	Bill To Company:	ny:	7			Client ID#		
Company Name: ららい		P	314	Atte	Attention To:		5			# Samples in Shipment:	Shipment:	
Street: 5801		95 # 200	C	Street:	et:		1	336	,	Date of Shipment:	ment:	
City: Dるへんと State/Province:		Zip/Pos عب	Zip/Postal Code: 80216			StateIP	State/Province:	Zip/Po	Zip/Postal Code:	Sampled By (Signature):	(Signature):	
Phone: 363-548-1175	SE11-815	Fax:		Phone:	ne:		Fax:			Purchase Order:	rder:	
Email Results To	C'	AP WALTON	יוופ משט מדו	Some Com	ect Name:	TIMOS	か	Crence State	e where Sam	عيمك J.S. State where Samples Collected:		
Turnarour	Turnaround Time (TAT) – Please Check: If No Selection Made, Standard 2 Week TAT Will	Please Chec	k: If No Se	lection M	ade, Stan	dard 2 W	eek TAT	Will Apply	Med	Media Type:		
2 Week	1 Week	4 Day	3 Дау		2 Day	1 Day	У	Other (Call Lab)		Manufacturer/Part #:		
						M			Lot #:	#:		
Client Sample ID	Location/Description		Analyte / Method	Media	Flow [Sample On	Time	Volume / Area	Sample Type	Sample Date	Comments	
16CM - 45-5	1 800 K	183	18	50482.1	0,1	1 Sh:8	54:21	7 17	☐ Area ☐ Personal	1-82-19	6H	
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									☐ Area ☐ Personal			
Note: Most NIOSH	Note: Most NIOSH and OSHA methods require field blanks.	ds require fiela	blanks. It is	It is the IH field sampler's responsibility to submit th	sampler's	responsibi	lity to subr	0	number of fie	proper number of field blanks and duplicates	cates.	
Released By)		D	Date	Rec	Received By			•	Date	
	ر د ر	4		1-29-	4-19		NA	7(7124	NIOS/12/2/14/2	des: 8 h	
Comments:												

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200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491900072 Customer ID: SREC85

Customer PO: Not Available

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216

Project: EPA - Floor 2 Clearance

Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 1/29/2019
Date Received: 1/30/2019
Date Analyzed: 1/30/2019

Analyst: Tracy Peters

Fixed Gas Analysis by Using The Draeger CMS (Chip Measurement System) Laboratory Report- Sample Summary

Sample ID.	Identification	Compound	Detection Limit (ppmV)	Sample Result (ppmV)
491900072-0001	EPA Floor 2	Carbon monoxide	6.5	<6.5
491900072-0001	EPA Floor 2	Carbon dioxide	260	390

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date: 1/31/2019

Report Revision R0 **Revision Comments**

Initial Report

Marjorie Howley, Laboratory Manager

Majour Howley

or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

Reason for Exchange (circle appropriate)

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Other

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Other: Other

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EME	AMAINAMA

USEPA TO-15

External Chain of Custody/ Field Test Data Sheet EMSL Order Number (Lab Use Only):

Matrix 23ELLER IneV Vent Sample Collection Zip Code: 名らこらら Soil Gas Indoor\ Ambient Air EMSL Analytical, Inc. 200 Route 130 North Cinnaminson, NJ 08077 Ph. (800) 220-3676 Fax (856) 786-0327 (Specify) Other Analysis LIBRARY SEARCH NJDEP LLTO-15 Sampled By (Name): Sampled By (Sign): Total # of Samples: SI-OT A932U Analyst Signature (TO-15): Lab Canister Certification Purchase Order: Cat Flow (mil/min) 21.2 Date Shipped: Flow Contoller 806 Results Only (Standard Lab Report) LOOR of CLEARANCE Incoming Pressure ("Hg) 01/2 Lab Use Only Outpoing Preseure ("Hg) -2H.7 Canister Information Can Cert Batch ID (3679 Full Deliverables (Surcharge may apply) Fax Date/ Time Size (T) Reporting Format: 7919000 Carrister ID Project Name: ERA 0432 ğ Bill To Company: Interior Temp. Sampling Stop Information Attention To: Time (24 Pressure. Fr clock) ("Hg) Address 1: Phone No.: Address 2: 3 Barometric Pres. ("Hg): Received by: 1-29-19 13:60 Email Results 10:50 Envisormental Carsection. Com Field Use - All Information Required! Stop Date 308 ☐ 10 Day Standard Company Name: 5 & R. Enxzeunmenten 80216 (saken 4 200 Interior 04 ₹ 6 Sampling Start Information Date/ Time Time (24 Pressure hr dock) ("Hg) Fax: 36 Barometric Pres. ("Hg): (urnaround Time (in Business Days): الم دهم عز Report To Contact Name: Acex 54:8 9 124 **⊠** 10ey 61-62-1 Start Date Address 2: Denner Relinquished by: Address 1: 5861 Identification Client Field Sample Comments: EYA KLOOG Phone No.: D Story □ 2 Dey EMSL Sample identifier

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491900072

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

	with helpful interpretation i		
company: SER En	VIRON MENT	ar Consulting	
Contact Person:			
Name: ALEX	GREEN		
E-mail: ALEX @ GRE	nrzem mentak	CONSULTENG. COM	
Additional E-mails: 10m @	Sh Environme	maclonsurians, com	
	48- 1175	Constitution, Com	
ibrary Search requested: A library search (aka Tentatively Identif compounds. If you are performing an I or your sample.	fied Compounds \ will identify up a] NO to 20 of the largest, non-target peaks that are not part of the standard gation, the library search is recommended to provide you with all availa	TO-15 list of 74
Sample Type:			
Indoor Air Quality (Home/Offi IAQ (Industrial) Other: Sample Description:	EPA-FLOUR	[] Soil Gas/Sub Slab REPARE	0143 - 2019 J J
LEASE NOTE: The result forms we progency. If you would like that informat	ovide will not indicate whether y tion, please check off below whic	your results have exceeded any Exposure Limit criteria established by a ch regulatory comparison forms you would like to receive.	iny rediatory
[] OSHA PELs/NIOSH RELS [] EPA RSLs - 11/2017; defoult is THQ 0 [] EPA VISLs - 3/2012 [] NJ DEP - 1/2018 - Circle one: [] NC DENR - 4/2014 - Circle one:	combined form	[] Potential Sources of Compounds found in your IAQ sample [X] TVOC (Library Search Required for this format) [] NH DES_WMD - 2/2012	50%, N.J.
PA DEP - 11/2016	Indoor Air	[] Vermont DEP IROCP - 4/2012 (soil gas only)	
[] PA DEP - 11/2016: Sub Slab Soil Ga [] CA HHSL - 11/2004 - Circle one:	s OR Near Source Soil Gas Indoor Air Soil Gas	[] California OEHHA - 2/2012 [] Other; these are the compounds I want reported:	
ease note: There is an additional charg nnaminson NJ Laboratory.	ge for any of the tests below. USE	PA TO-3 AND ASTM 5504 analyses can be performed from your canist	er at the
US EPA TO-3 via GC/FID (choose one	e below):	TM-D5504 via GC/SCD (choose one below):*	
[] C ₁ -C ₆ hydrocarbons [] Methane only	Ţ] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS)] H ₂ S only	
Note: Hold time for sulfur gases i	is 1 day from collection. Please so	chedule your sample collection so samples are received in the lab prior	to noon
e can provide the following CMS tests f IAQ/Screening purposes ONLY. EMS	from your canisters at the Cinnan	nirson and Huntington Beach laboratories. Please note these tests are mpling techniques for these parameters (with the exception of water vitional charge for any of the tests below.	
mple Retention Policy: All canisters ar	e quaranteed to be retained for	one day after results are reported. Please review your results prompt period of time, but arrangements to hold your cans must be made thro	



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491900072 Customer ID: SREC85

Customer PO: Not Available

Attn: **Alex Green**

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Project: EPA - Floor 2 Clearance

Phone: 303-297-1645

Fax: 303-297-1646

Date Collected: 1/29/2019 Date Received: 1/30/2019

Laboratory Report- Sample Summary

EMSL Sample ID.	Client Sample ID.	Start Sampling Date	Start Sampling Time
491900072-0001	EPA Floor 2	1/29/2019	8:45 AM

If "Preliminary Report" is displayed in the signature box; this indicates that there are samples that have not yet been analyzed, that are in a preliminary state, or that analysis is in progress but not completed at the time of report issue.

Report Date 1/31/2019 Report Revision R0

Revision Comments Initial Report

> Marjorie Howley, Laboratory Manager or other approved signatory

Majour Howley

Test results meet all NELAP requirements unless otherwise specified. NJDEP Certification #: 03036

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The results are not blank corrected unless otherwise noted. Interpretation and use of test results are the responsibility of the client. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491900072 Customer ID: SREC85 Customer PO: Not Available

Phone: 303-297-1645 Attn: Alex Green S&R Environmental Consulting, Inc. Fax: 303-297-1646

5801 Logan Street, #200 Denver, CO 80216

Date Collected: 1/29/2019

Date Received: 1/30/2019 Project: EPA - Floor 2 Clearance

Case Narrative

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).

Column

Restek RTX-502.2, 60m, 0.25mm ID, 1.4um

Concentrator Traps:

Entech Dual Cold Traps: (1) 1/8" No Packing, (2) 1/8" Tenax.

Gas Standards:

Certified Gas standards were used for all analyses.

Sample Volumes:

Sample volume aliquots for this procedure are 250cc for indoor/ ambient air and 25cc for soil gas. Other volumes for sample dilutions are reflected on each result page.

Holding Times:

Standard holding times of 30 days were met for all samples.

Sampling Pressures:

All samples were received at acceptable pressure/vacuum unless listed below.

Sample Dilutions:

Dilutions reported are designated by the sample # with a "DL" suffix resulting from initial analysis having compounds exceeding calibration as reported with an "E" qualifier. Ethanol and Isopropanol are not diluted for and may be reported with an "E" qualifier on the final result.

QA/QC criteria outside method specifications are listed below (if applicable).

Initial Calibration

All Initial Calibration criteria met method specification.

Initial Calibration Verification Standard (ICVS)- Second Source

ICVS met method specification with 70-130% recovery for 100% of compounds.

Laboratory Control Sample (LCS)

LCS met method specification with 70-130% recovery for 100% of compounds.(If the LCS does not meet criteria but any compounds which have recoveries >130% are not found in the samples, samples may be reported)

Continuing Calibration Verification Standard (CCVS)

CCVS met method specification with all compounds within 30% deviation.

Ending Calibration Verification Standard (ECVS)

ECVS met method specification with all compounds within 30% deviation.

Method Blanks (MB)

Method Blank met method specification.

Reporting Limit Laboratory Control Samples (RLLCS)

RLLCS met method specification with 90% of compounds within the 60-140% recovery range. Individual compounds outside of the recovery range may be listed below.



Attn:

Project:

EMSL Analytical

5801 Logan Street, #200 Denver, CO 80216

EPA - Floor 2 Clearance

Alex Green

200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

S&R Environmental Consulting, Inc.

EMSL Order #: 491900072
Customer ID: SREC85
Customer PO: Not Available

Phone: **303-297-1645**

Fax: **303-297-1646**

Date Collected: 1/29/2019

Date Received: 1/30/2019

Case Narrative

Manual Integration: -Listed below if applicable. Before and after documentation provided in extended deliverable packages.

The following data qualifiers that may have been reported with the data,

ND- Non Detect. This notation would be used in the results column in lieu of a "U" qualifier.

- U- Compound was analyzed for but not detected at a listed and appropriately adjusted reporting level.
- J- Estimated value reported below adjusted reporting limit for target compounds or estimating a concentration for TICs where a 1:1 response is assumed
- B- Compound found in associated method blank as well as in the sample.
- E- Estimated value exceeding upper calibration range of instrument. Ethanol and isopropyl alcohol are not specifically targeted to dilute within calibration range.
- D- Compound reported from additional diluted analysis.
- N- indicates presumptive evidence of a compound based on library search match.

EMSL Analytical, Inc. certifies that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer –readable data submitted on diskette has been authorized by the laboratory manager or his/her designee, as verified by the following signature.

Report Date 1/31/2019

Report Revision

R0

Revision Comments

Initial Report

Marjorie Howley, Laboratory Manager

Majour Howley

or other approved signatory

Test results meet all NELAP requirements unless otherwise specified.



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491900072

EMSL Sample #: 491900072-1

Customer ID: SREC85

Customer PO: Not Available

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 Denver, CO 80216 Phone: **303-297-1645** Fax: **303-297-1646**

Date Collected: 1/29/2019
Date Received: 1/30/2019

Project: **EPA - Floor 2 Clearance**

Sample ID: EPA Floor 2

Analysis Initial	Analysis Date 01/31/2019	Analyst Init. TP	<u>Lab File ID</u> P4789.D	Canister ID E0432	Sample Vol. 322.5 cc	Dil. Factor
initial	01/31/2013		1 4703.5	L0402	322.3 00	

Target Compound Results Summary

	9	1	Result	RL	,	Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Propylene	115-07-1	42.08	ND	1.0		ND	1.7	
Freon 12(Dichlorodifluoromethane)	75-71-8	120.9	0.51	0.50		2.5	2.5	
Freon 114(1,2-Dichlorotetrafluoroethan	76-14-2	170.9	ND	0.50		ND	3.5	
Chloromethane	74-87-3	50.49	0.52	0.50		1.1	1.0	
n-Butane	106-97-8	58.12	6.9	0.50		16	1.2	
Vinyl chloride	75-01-4	62.50	ND	0.50		ND	1.3	
1,3-Butadiene	106-99-0	54.09	ND	0.50		ND	1.1	
Bromomethane	74-83-9	94.94	ND	0.50		ND	1.9	
Chloroethane	75-00-3	64.52	ND	0.50		ND	1.3	
Ethanol	64-17-5	46.07	13	0.50		24	0.94	
Bromoethene(Vinyl bromide)	593-60-2	106.9	ND	0.50		ND	2.2	
Freon 11(Trichlorofluoromethane)	75-69-4	137.4	ND	0.50		ND	2.8	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	1.5	0.50		3.7	1.2	
Freon 113(1,1,2-Trichlorotrifluoroethan	76-13-1	187.4	ND	0.50		ND	3.8	
Acetone	67-64-1	58.08	3.2	0.50		7.5	1.2	
1,1-Dichloroethene	75-35-4	96.94	ND	0.50		ND	2.0	
Acetonitrile	75-05-8	41.00	7.5	0.50		13	0.84	
Tertiary butyl alcohol(TBA)	75-65-0	74.12	ND	0.50		ND	1.5	
Bromoethane(Ethyl bromide)	74-96-4	108.0	ND	0.50		ND	2.2	
3-Chloropropene(Allyl chloride)	107-05-1	76.53	ND	0.50		ND	1.6	
Carbon disulfide	75-15-0	76.14	ND	0.50		ND	1.6	
Methylene chloride	75-09-2	84.94	ND	0.50		ND	1.7	
Acrylonitrile	107-13-1	53.00	ND	0.50		ND	1.1	
Methyl-tert-butyl ether(MTBE)	1634-04-4	88.15	ND	0.50		ND	1.8	
trans-1,2-Dichloroethene	156-60-5	96.94	ND	0.50		ND	2.0	
n-Hexane	110-54-3	86.17	0.72	0.50		2.5	1.8	
1,1-Dichloroethane	75-34-3	98.96	ND	0.50		ND	2.0	
Vinyl acetate	108-05-4	86.00	ND	0.50		ND	1.8	
2-Butanone(MEK)	78-93-3	72.10	ND	0.50		ND	1.5	
cis-1,2-Dichloroethene	156-59-2	96.94	ND	0.50		ND	2.0	
Ethyl acetate	141-78-6	88.10	0.96	0.50		3.4	1.8	
Chloroform	67-66-3	119.4	ND	0.50		ND	2.4	
Tetrahydrofuran	109-99-9	72.11	ND	0.50		ND	1.5	
1,1,1-Trichloroethane	71-55-6	133.4	ND	0.50		ND	2.7	
Cyclohexane	110-82-7	84.16	ND	0.50		ND	1.7	
2,2,4-Trimethylpentane(Isooctane)	540-84-1	114.2	ND	0.50		ND	2.3	
Carbon tetrachloride	56-23-5	153.8	ND	0.50		ND	3.1	
n-Heptane	142-82-5	100.2	ND	0.50		ND	2.0	
1,2-Dichloroethane	107-06-2	98.96	ND	0.50		ND	2.0	
Benzene	71-43-2	78.11	ND	0.50		ND	1.6	
Trichloroethene	79-01-6	131.4	ND	0.50		ND	2.7	
1,2-Dichloropropane	78-87-5	113.0	ND	0.50		ND	2.3	
Methyl Methacrylate	80-62-6	100.12	ND	0.50		ND	2.0	
Bromodichloromethane	75-27-4	163.8	ND	0.50		ND	3.3	
1,4-Dioxane	123-91-1	88.12	ND	0.50		ND	1.8	
4-Methyl-2-pentanone(MIBK)	108-10-1	100.2	ND	0.50		ND	2.0	
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200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491900072 491900072-1 EMSL Sample #: Customer ID: SREC85 Customer PO: Not Available

Attn: Alex Green

S&R Environmental Consulting, Inc.

5801 Logan Street, #200 **Denver, CO 80216**

Phone: 303-297-1645 Fax: 303-297-1646

Date Collected: 1/29/2019 Date Received: 1/30/2019

Project: EPA - Floor 2 Clearance

Sample ID: EPA Floor 2

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	01/31/2019	TP	P4789.D	E0432	322.5 cc	1

Target Compound Results Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
cis-1,3-Dichloropropene	10061-01-5	111.0	ND	0.50		ND	2.3	
Toluene	108-88-3	92.14	0.81	0.50		3.0	1.9	
trans-1,3-Dichloropropene	10061-02-6	111.0	ND	0.50		ND	2.3	
1,1,2-Trichloroethane	79-00-5	133.4	ND	0.50		ND	2.7	
2-Hexanone(MBK)	591-78-6	100.1	ND	0.50		ND	2.0	
Tetrachloroethene	127-18-4	165.8	ND	0.50		ND	3.4	
Dibromochloromethane	124-48-1	208.3	ND	0.50		ND	4.3	
1,2-Dibromoethane	106-93-4	187.8	ND	0.50		ND	3.8	
Chlorobenzene	108-90-7	112.6	ND	0.50		ND	2.3	
Ethylbenzene	100-41-4	106.2	ND	0.50		ND	2.2	
Xylene (p,m)	1330-20-7	106.2	ND	1.0		ND	4.3	
Xylene (Ortho)	95-47-6	106.2	ND	0.50		ND	2.2	
Styrene	100-42-5	104.1	ND	0.50		ND	2.1	
Isopropylbenzene (cumene)	98-82-8	120.19	ND	0.50		ND	2.5	
Bromoform	75-25-2	252.8	ND	0.50		ND	5.2	
1,1,2,2-Tetrachloroethane	79-34-5	167.9	ND	0.50		ND	3.4	
4-Ethyltoluene	622-96-8	120.2	ND	0.50		ND	2.5	
1,3,5-Trimethylbenzene	108-67-8	120.2	ND	0.50		ND	2.5	
2-Chlorotoluene	95-49-8	126.6	ND	0.50		ND	2.6	
1,2,4-Trimethylbenzene	95-63-6	120.2	ND	0.50		ND	2.5	
1,3-Dichlorobenzene	541-73-1	147.0	ND	0.50		ND	3.0	
1,4-Dichlorobenzene	106-46-7	147.0	ND	0.50		ND	3.0	
Benzyl chloride	100-44-7	126.0	ND	0.50		ND	2.6	
1,2-Dichlorobenzene	95-50-1	147.0	ND	0.50		ND	3.0	
1,2,4-Trichlorobenzene	120-82-1	181.5	ND	0.50		ND	3.7	
Hexachloro-1,3-butadiene	87-68-3	260.8	ND	0.50		ND	5.3	
Naphthalene	91-20-3	128.17	ND	0.50		ND	2.6	
Total Target Compound Concent	rations:	•	36	ppbv		77	ug/m3	

Result Spike Recovery Surrogate 4-Bromofluorobenzene 10 10 100%

Qualifier Definitions

ND = Non Detect

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491900072 EMSL Sample #: 491900072-1 Customer ID: SREC85 Customer PO: Not Available

Alex Green

Phone: **303-297-1645** S&R Environmental Consulting, Inc. Fax: 303-297-1646 5801 Logan Street, #200 Date Collected: 1/29/2019 **Denver, CO 80216** Date Received: 1/30/2019

Project: EPA - Floor 2 Clearance

Sample ID: EPA Floor 2

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	<u>Sample Vol.</u>	Dil. Factor
Initial	01/31/2019	TP	P4789.D	E0432	322.5 cc	1

Tentatively Identified Compound Results Summary

	Tentatively id	ciitiiica		a itesui			
			Result		Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv	Q	ug/m3	Time	Comments
Propane	000074-98-6	44	2.6	JN	4.7	5.19	
Isobutane	000075-28-5	58	2.3	JN	5.5	5.68	
Butane, 2-methyl-	000078-78-4	72	1.4	JN	4.2	7.79	
Pentane	000109-66-0	72	1.9	JN	5.7	8.73	
	Total TIC Conce	ntrations	8.2	vdqq	20	ug/m3	

Qualifier Definitions

- (1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.
- B = Compound also found in method blank.
- J= Estimated value based on a 1:1 response to internal standard.
- N= Presumptive evidence of compound based on library match.

Method Reference

USEPA: Compendium Method TO-15, "Determination of Volatile Organic Compounds (VOCs) in Air..." Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS), January 1999, (EPA/625/R-96/010b).



200 Route 130 North, Cinnaminson, NJ 08077 Phone/Fax: (856)858-4800 / (856)858-4571 http://www.EMSL.com to15lab@EMSL.com

EMSL Order #: 491900072 491900072-1 EMSL Sample #: Customer ID: SREC85 Customer PO: Not Available

Phone:

Alex Green

303-297-1645 S&R Environmental Consulting, Inc. Fax: 303-297-1646 5801 Logan Street, #200 1/29/2019 Date Collected: **Denver, CO 80216** 1/30/2019 Date Received:

Project: EPA - Floor 2 Clearance

Sample ID: EPA Floor 2

<u>Analysis</u>	Analysis Date	Analyst Init.	<u>Lab File ID</u>	Canister ID	Sample Vol.	Dil. Factor
Initial	01/31/2019	TP	P4789.D	E0432	322.5 cc	1

Total Volatile Organic Compounds (TVOC) Summary

			Result	RL		Result	RL	
Target Compounds	CAS#	MW	ppbv	ppbv	Q	ug/m3	ug/m3	Comments
Freon 12(Dichlorodifluoromethane)	75-71-8	120.90	0.51	0.50		2.5	2.5	
Chloromethane	74-87-3	50.49	0.52	0.50		1.1	1.0	
n-Butane	106-97-8	58.12	6.9	0.50		16	1.2	
Ethanol	64-17-5	46.07	13	0.50		24	0.94	
Isopropyl alcohol(2-Propanol)	67-63-0	60.10	1.5	0.50		3.7	1.2	
Acetone	67-64-1	58.08	3.2	0.50		7.5	1.2	
Acetonitrile	75-05-8	41.00	7.5	0.50		13	0.84	
n-Hexane	110-54-3	86.17	0.72	0.50		2.5	1.8	
Ethyl acetate	141-78-6	88.10	0.96	0.50		3.4	1.8	
Toluene	108-88-3	92.14	0.81	0.50		3.0	1.9	
Total Target Co	ompound Conce	entrations:	36	vdaa		77	ua/m3	

Qualifier Definitions

B = Compound also found in method blank.

E= Estimated concentration exceeding upper calibration range.

D= Result reported from diluted analysis.

			Result			Result	Retention	
Tentatively Identified Compounds	CAS#	MW(1)	ppbv		Q	ug/m3	Time	Comments
Propane	000074-98-6	44	2.6		JN	4.7	5.19	
Isobutane	000075-28-5	58	2.3		JN	5.5	5.68	
Butane, 2-methyl-	000078-78-4	72	1.4		JN	4.2	7.79	
Pentane	000109-66-0	72	1.9		JN	5.7	8.73	
	Total TIC Conce	ntrations:	8.2	ppbv		20	ug/m3	

Qualifier Definitions

(1) = If unknown, MW is assigned as equivalent Toluene (92) for ug/m3 conversion purposes.

B = Compound also found in method blank.

J= Estimated value based on a 1:1 response to internal standard.

N= Presumptive evidence of compound based on library match.

ppbv Total Volatile Organic Compounds (TVOCs): ug/m3

Other

Shipping Courier Receiving Sempling

USEPA TO-15

ENSL Analytical, Inc.	200 Route 130 North Cinnaminson, NJ 08077	Ph. (800) 220-3676 Fax (856) 786-0327			Sampled By (Name): You Carecap	Total # of Samples:	Date Shipped:	Sample Collection Zin Code: タヘフトク			Analysis	\dashv	RCF RCF	O. EA	TT S &	A NOC	BIJ Spu			20	9	JAN	3	0	A	N. 10	5	Lab Canister Certification	Analyst Signature (TO-15):	Excrang	reppra) Courter Receiving Sampling Other:	Shipping Courter Receiving Sampling Other:	Shipping Courter Receiving Sampling (2017)	Shipping Courier Receiving Sampling Other;
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		EMSI.	Report To Contact Name: ALEX	Company Name: SER E	5801 LOBAN	Address 2: Denner		ALEX 6. 2. 2. 1	its To:	Turnaround Time (in Business Days):	Ċ	×	Field U.	Samplin		1 C	20 10	11-11-1									is:		Relinquished by:	一人科技	6			
EME		MALYTICAL, INC.	Report To	Company	Address 1: 5801	Address 2:	Phone No.			_		20g/	du	281	Client Field	Sample	ü	7000									Comments:		Relinqu	Carly	P.	7		

491900072

TO-15 Sample Information

Please fill out this worksheet in addition to the Chain of Custody form. This information helps us to best analyze your samples, achieve requested TAT, and provide you with helpful interpretation information.

	with helpful interpretation i		
company: SER En	VIRON MENT	ar Consulting	
Contact Person:			
Name: ALEX	GREEN		
E-mail: ALEX @ GRE	nrzem mentak	CONSULTENG. COM	
Additional E-mails: 10m @	Sh Environme	maclonsurians, com	
	48- 1175	Constitution, Com	
ibrary Search requested: A library search (aka Tentatively Identif compounds. If you are performing an I or your sample.	fied Compounds \ will identify up a] NO to 20 of the largest, non-target peaks that are not part of the standard gation, the library search is recommended to provide you with all availa	TO-15 list of 74
Sample Type:			
Indoor Air Quality (Home/Offi IAQ (Industrial) Other: Sample Description:	EPA-FLOUR	[] Soil Gas/Sub Slab REPARE	0143 - 2019 J J
LEASE NOTE: The result forms we progency. If you would like that informat	ovide will not indicate whether y tion, please check off below whic	your results have exceeded any Exposure Limit criteria established by a ch regulatory comparison forms you would like to receive.	iny rediatory
[] OSHA PELs/NIOSH RELS [] EPA RSLs - 11/2017; defoult is THQ 0 [] EPA VISLs - 3/2012 [] NJ DEP - 1/2018 - Circle one: [] NC DENR - 4/2014 - Circle one:	combined form	Potential Sources of Compounds found in your IAQ sample TVOC (Library Search Required for this format) NH DES_WMD - 2/2012 Indoor Air Soil Gas Ohio - 4/2013 - Circle one: Residential Commercial	50%, N.J.
PA DEP - 11/2016	Indoor Air	[] Vermont DEP IROCP - 4/2012 (soil gas only)	
[] PA DEP - 11/2016: Sub Slab Soil Ga [] CA HHSL - 11/2004 - Circle one:	s OR Near Source Soil Gas Indoor Air Soil Gas	[] California OEHHA - 2/2012 [] Other; these are the compounds I want reported:	
ease note: There is an additional charg nnaminson NJ Laboratory.	ge for any of the tests below. USE	PA TO-3 AND ASTM 5504 analyses can be performed from your canist	er at the
US EPA TO-3 via GC/FID (choose one	e below):	TM-D5504 via GC/SCD (choose one below):*	
[] C ₁ -C ₆ hydrocarbons [] Methane only	Ţ] Sulfur Scan (H ₂ S, COS, MeSH, EtSH, DMS)] H ₂ S only	
Note: Hold time for sulfur gases i	is 1 day from collection. Please so	chedule your sample collection so samples are received in the lab prior	to noon
e can provide the following CMS tests f IAQ/Screening purposes ONLY. EMS	from your canisters at the Cinnan	nirson and Huntington Beach laboratories. Please note these tests are mpling techniques for these parameters (with the exception of water vitional charge for any of the tests below.	
mple Retention Policy: All canisters ar	e quaranteed to be retained for	one day after results are reported. Please review your results prompt period of time, but arrangements to hold your cans must be made thro	

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USEPA TO-15

denti	fier					•			
den Spay (in Business Days): 10 Day Sandord	9	Phone No.: Fax:	Address 2: DENNER CD 80216	Address 1: 5801 Lowan at # 200	Company Name: SER ENTERONMENTON	Report To Contact Name: ALEX (50.225)	EMSL Order Number (Lab Use Only):		
Reporting Format: Results Only (Standard Lab Report)	Project Name: ERA - Rosa R CLEARANCE	Phone No.: Fax:	Address 2:	Address 1:	Attention To:	Bill To Company:	だし000 616 F	External Chain of Custody/ Field Test Data Sheet	USEPA TO-15
Analysis	Purchase Order:	Sample Collection Zip Code: そらこらえ	Date Shipped:	Total # of Samples:	``1 l	Sampled By (Slan):	Fax (868) 786-0327	Cinneminson, NJ 08077	EMSL Analytical, Inc.
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Clear Field Sampling Start Information Required Clear Field Sampling Start Information Required Clear Field Sampling Start Information Required Clear Field Sampling Start Information Required Clear Field Sampling Start Information Required Clear Field Sampling Start Information Required Clear Field Sampling Start Information Required Clear Field	_	_					16 -	, -				L	╧	\perp					_	EM:	SL :	Sai	mp	e i	dei	nti
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TO-FM-12 Sample Information Revision 10 Effective Date: May 25, 2018

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12421 W. 49TH AVENUE, UNIT #6 WHEAT RIDGE, CO 80033 (303) 463-8270

CRYSTALLINE SILICA ANALYSIS - AIR NIOSH 7500 METHOD - PAGE 1 OF 2

CLIENT:

S&R ENVIRONMENTAL CONSULTING 5801 LOGAN STREET, SUITE 200 DENVER, CO 80216 ANALYSIS DATE:

1-30-19

REPORTING DATE:

1-30-19

RECEIPT DATE: CLIENT JOB NO.: 1-29-19

PROJECT TITLE:

EPA FLOOR-2

DCMSL PROJECT:

SREC976,977

DCM NO.	CLIENT SAMPLE NO.	AIR VOLUME (L)	TOTAL MINUTES	DUST (1) (µg)	DUST CONCENTRATION $(\mu g \hbar^3)$	MEASURED QUARTZ (μg)	QUARTZ CONCENTRATION $(\mu_{\mathcal{G}} f_n^{-3})$	8 HOUR TWA (μg/m³)	QUARTZ %
-1R	185880	196	80	14	71	BLD	BLD	BLD	BLD
-2R	185884	105	80	<1	<1	BLD	BLD	BLD	BLD

BLD - BELOW THE ESTIMATED LIMIT OF DETECTION FOR THE METHOD (LESS THAN 5µg).

N - INFORMATION NOT PROVIDED BY CLIENT.

(1) DUST IS CONSIDERED RESPIRABLE BASED ON SAMPLING METHOD. SAMPLES MUST BE COLLECTED USING A CYCLONE DEVICE TO BE CONSIDERED RESPIRABLE.

THE SAMPLE(S) WAS/WERE WEIGHED WITH A METTLER XP56 MICROBALANCE WITH A REPORTING LIMIT OF ± 0.006 mg. THE BALANCE IS CERTIFIED WITHIN INSTRUMENT SPECIFICATIONS AND TRACEABLE TO NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.

THE SAMPLE(S) WAS/WERE ANALYZED USING THE NIOSH 7500 METHOD AND OSHA METHOD ID-142. THE FILTERS WERE ASHED AND THE ASHED RESIDUE WAS DEPOSITED ON 25mm SILVER FILTERS AND ANALYZED IN CONJUNCTION WITH PREPARED STANDARDS OF CRYSTALLINE SILICA. CLIBRATION CURVES ARE ESTABLISHED FOR CRYSTALLINE SILICA USING NIST AND NIOSH STANDARD REFERENCE MATERIALS. SAMPLE INTENSITIES WERE CALCULTATED RELATIVE TO CALIBRATION CURVES. THE QUANTITATIVE DETECTION LIMIT OF CRYSTALLINE SILICA FOR THIS METHOD IS 5µg QUARTZ AND 10µg CRISTOBALITE/TRIDYMITE THE COEFFICIENT OF VARIATION OF TIS METHOD AS STATED BY NIOSH 7500 IS 0.09 FOR CONCENTRATIONS BETWEEN 25µg AND 2500µg. ALL CALCULATIONS ARE BASED UPON THOSE IN NIOSH 7500. OSHA AND MSHA METHODS.

THE FILTER MATERIAL WAS PREPARED AND SCANNED BY X-RAY DIFFRACTION TO DETERMINE THE PHASES OF CRYSTALLINE SILICA PRESENT IN THE SAMPLES. IDENTIFIED CRYSTALLINE SILICA POLYMORPHS WERE SCANNED OVER PRINCIPAL PEAKS USING A SLOW SCAN RATE TO DETERMINE CONCENTRATION. CRISTOBALITE AND TRIDYMITE WERE NOT IDENTIFIED IN THE SAMPLES. THEREFORE, THE TOTAL CONCENTRATION OF CRYSTALLINE SILICA IS DERIVED FROM THE CONCENTRATION OF QUARTZ.



12421 W. 49TH AVENUE, UNIT #6 WHEAT RIDGE, CO 80033 (303) 463-8270

CRYSTALLINE SILICA ANALYSIS - AIR NIOSH 7500 METHOD - PAGE 2 OF 2

CLIENT:

S&R ENVIRONMENTAL CONSULTING 5801 LOGAN STREET, SUITE 200 DENVER, CO 80216 ANALYSIS DATE:

1-30-19

REPORTING DATE:

1-30-19

RECEIPT DATE:

1-29-19

CLIENT JOB NO.: PROJECT TITLE:

EPA FLOOR-2

DCMSL PROJECT:

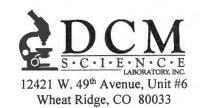
SREC976,977

NO BLANKS WERE SUBMITTED BY THE CLIENT. THE RESULTS ARE NOT BLANK CORRECTED.

THE SAMPLE(S) WAS/WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL WITHOUT THE WRITTEN WRITTEN APPROVAL OF THE LABORATORY.



Jason Barnes, ANALYST



(303) 463-8270/(800) 852-7340 (303) 463-8267 – fax

Date/Time Received	DCMSL Group No	DCMSL Log No					
Samples Submitted By: Tom 7							
Company: SER ENVIOUS	W2U-d	Job/P	.O.#				
Address: 5801 Loca	n & #1200	Job/P.O. # EPA Project Title Floor - 2					
Contact: 10m CIECO	5	· ·					
Phone: 720-317-4	254	Archiv	e: Samples are archived f	or 6 months			
Cell:			other arrangements are ma				
Email: 10m & A	5*	411400	• · · · · · · · · · · · · · · · · · · ·				
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Turnaround Time Requested:			dure Requested:				
[] Standard (3 to 5 Business Da	ays)	DUSI	Γ & SILICA				
[7] 24 Hour Rush		M	Dust – NIOSH 0500				
			Silica – Air NIOSH	7500 (Quartz Only)			
		1	Silica - Air NIOSH	7500 (All Polymorphs)			
Cassette No.:	Employee or Other Information		Air Volume	Minutes			
1 186886	RESP DUST		196 L	80 mza			
2 185884	TOTAL DUST		105 L	80 mm			
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9							
10							
11	Mar 0.00		1.00-000				
12		7					
Relinquished By:	Date/Time		ved By:	Date/Time			



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213 Web: wohl-lab.org

ALEX GREEN
S & R ENVIRONMENTAL CONSULTING
STE 200
5801 LOGAN ST
DENVER, CO 80216

Lab Workorder ID 429481

Visit/Project ID EPA - FLOOR 2

PO

Received February 1, 2019 **Reported** February 8, 2019

Report ID 6175856

Previous Report IDs

Dear ALEX GREEN:

Enclosed are the analytical results for sample(s) received by the laboratory on February 1, 2019. All samples received were acceptable, results were not blank corrected, and all quality control met laboratory standards unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact the lab.

Sincerely,

Steve Strebel, Laboratory Director

Analyst - JOHN GLOWACKI

Page 1 of 2 Report ID: 6175856



2601 Agriculture Drive Madison, WI 53718 Phone: (800) 446-0403 Fax: (608) 224-6213

Web: www.wohl-lab.org

Final Report

Lab ID: 429481001 Sample ID: CAP-EPA-FLOOR 2 Media: OVS-7 TUBE

Sampling Date: 1/29/2019 Matrix: Air Sampled Time:

		RESULT							
Analyte	Method	Analysis Date	Air Volume	Reporting Limit	Front	Rear	Total	Air Concentration	TWA
Caprolactam (Dust and Vapor)	OSHA PV2012	2/6/2019	100 L	1.5 ug	<1.5 ug	<1.5 ug	<1.5 ug	<0.015 mg/m3	

Abbreviations:

mg = milligrams ppm or ppmv = parts per million /m3 = per cubic meter ug = micrograms ppb or ppbv = parts per billion ng = nanograms

End of Analytical Report

The results in this report apply only to the samples, specifically listed above, and tested at the Wisconsin Occupational Health Laboratory

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Page 2 of 2 Report ID: 6175856

< Less Than. The analyte, if present, is at a level too low to be accurately quantitated by the method used